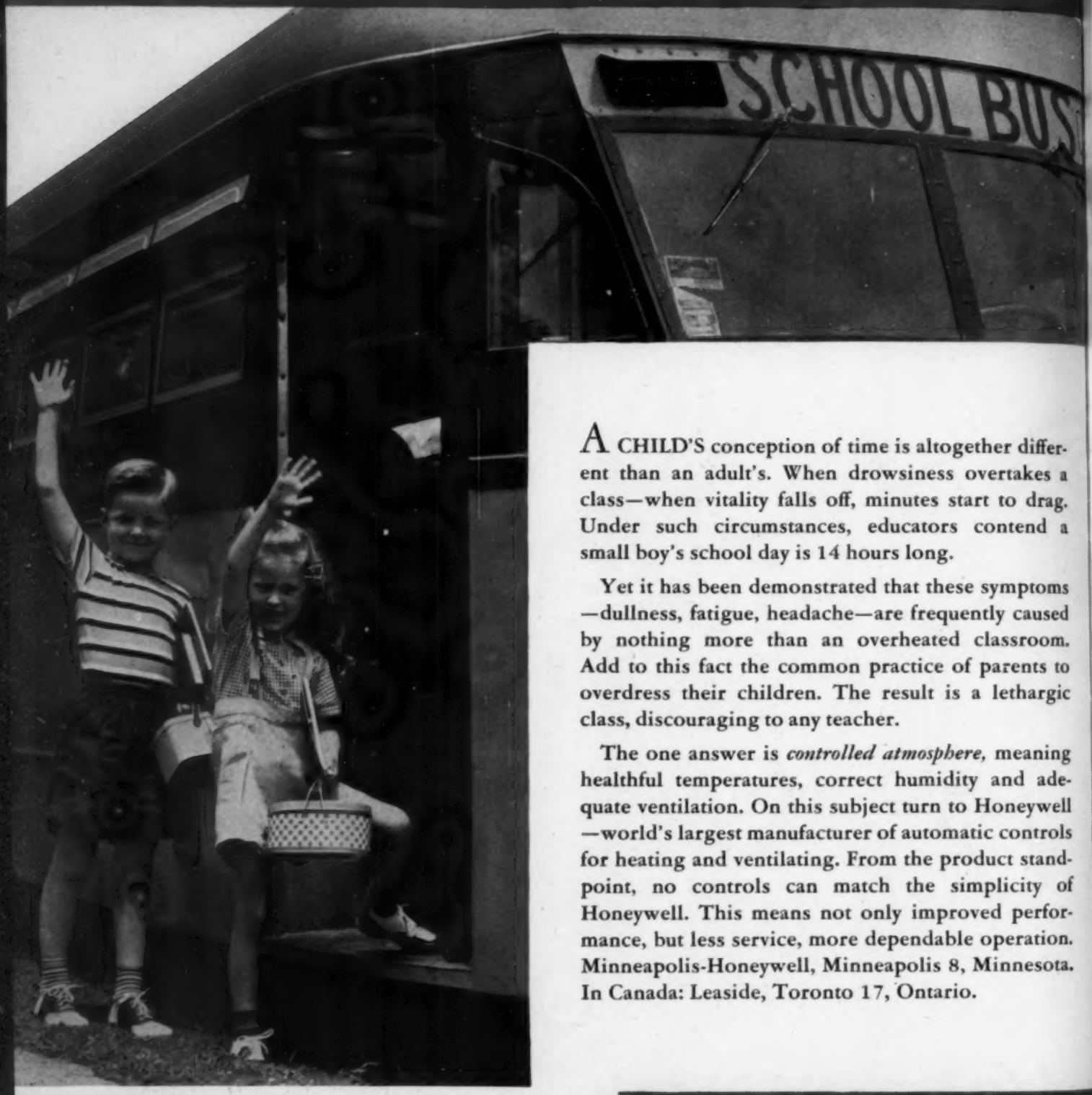
College and University Business

JULY 1950: Accounting for Investment Income ★ Radial System of Administration ★ Secretarial Pools ★ Seating Large Groups ★ New Buildings ★ Television Pioneer ★ Buying Linens ★ Successful Menus

Off for a 14 Hour Day?



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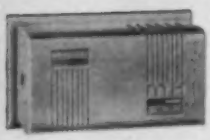

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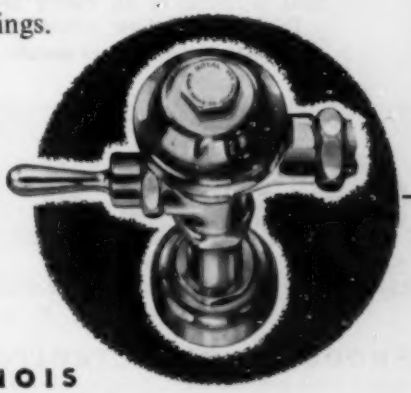

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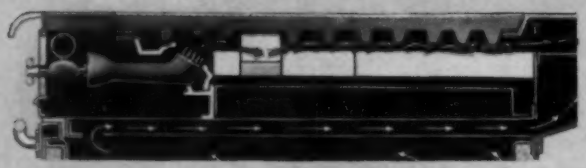

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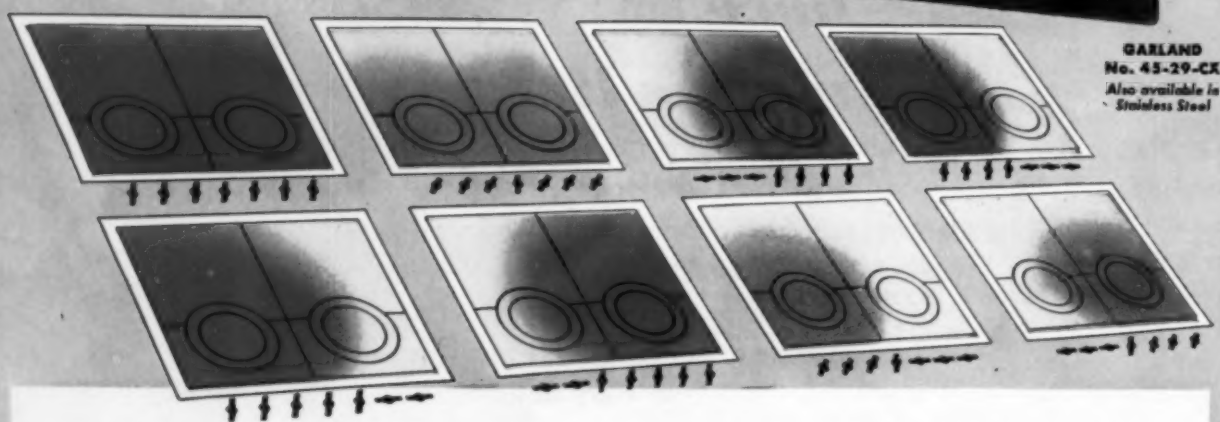

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Among the Authors

J. I. Kirkpatrick

JOHN I. KIRKPATRICK, treasurer and secretary of the board of trustees of Lehigh University, describes on page 19 how his institution attempts to set up its records relative to accounting for investment income. Seven years with the Irving Trust Company, plus two years in business, three years with the navy, and eight years on the Lehigh administrative staff, have given him a well rounded background of practical experience for a discussion of endowment investments. Not all of his time is spent on weighty financial matters, as is evidenced by his interest in music and a generous block of time devoted to civic organizations, in which he is variously active as trustee, director and president.

A. R. Cullimore

ALLAN R. CULLIMORE, president emeritus of Newark College of Engineering, brings an engineer's analytical approach to the problem of college administrative procedures which he discusses on page 25. He has spent his entire career in engineering, and from 1927 to 1949 was president of Newark College. His first start in engineering was in 1909 when he was appointed assistant superintendent of construction for the city of St. Louis. Since 1912, however, he has been affiliated with educational institutions and retired just a year ago. He is a recipient of several honorary degrees, and also has several magazine articles and books to his credit.

C. D. Owens

CHARLES D. OWENS, manager of associated student activities at the University of Washington in Seattle, reveals on page 29 that student government has really become "big business." He has been active in the leadership of recreational and leisure time activities for more than 20 years. Sixteen of them were spent at the University of Wisconsin, where he served as assistant to the director of the Wisconsin Memorial Union building. In January 1947 he accepted his present appointment at the University of Washington to assist the university in the planning of its new student union building, the first two units of which were opened for occupancy in October 1949. Though he claims golf as his major recreational activity and a sincere interest in sports in general, he reports that in recent years he hasn't had much opportunity to indulge in these hobbies because of an overcrowded work schedule. . . . RICHARD B. HULL, director of Iowa State's radio station WOI, describes on page 39 his institution's pioneer effort in the field of educational television. He is now serving his third term as president of the National Association of Educational Broadcasters. . . . CARSON GULLEY, senior chef of the University of Wisconsin, division of residence halls, has made the preparation and serving of tasty foods his major interest in life. For the last 23 years he has held his present position at the university and within recent months has written several magazine articles revealing some of his trade secrets; in fact, he has a book, "Seasoning Secrets," to his name. His article on food preparation and a photograph in professional garb appear on page 47.

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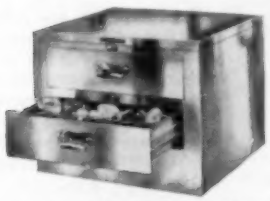

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Questions and Answers

Building Cost Figures

Question: We have been studying the recent surveys of college building costs which have been appearing monthly in College and University Business. Do the figures indicate total costs?—E.L.S., Ill.

ANSWER: An attempt has been made to obtain complete cost figures, with the type of construction definitely indicated. It has become apparent in several cases, however, that colleges tend to figure building costs the way many handle their accounting. In other words, there does not appear to be the standardization which would be desirable.

For example, one college in submitting cost figures for a residence hall will not include the furnishings and equipment, whereas a sister institution 10 miles away will do so. Obviously, a comparative study of building costs in such a case is meaningless. In other cases, utilities are charged to such facilities, whereas the opposite may be true at a college in the next county.

The editorial staff of College and University Business would welcome the assistance of college administrators and architects in establishing some uniform reporting form or schedule so that it might be possible to make accurate comparisons relative to college building costs.—H. W. HERMAN, *managing editor, College and University Business.*

Carcass Disposal

Question: We have a veterinary school at our college and are faced with the problem of proper disposal of carcasses after student laboratory use. We feel that a continuously fired incinerator for this purpose would be entirely too expensive. Do you have any suggestions?—R.M., N.M.

ANSWER: The size and type of incinerator equipment required depend, of course, upon the quantity of material to be disposed of. Utility destructors, capacity of 85 to 150 lb. per hour, are used only for the period of time required to burn the material on hand.

So-called intermediate destructors, capacity 120 to 250 lb. per hour, are built for a continuous burning period of 8 to 10 hours per day. Heavy destructors are built for capacities of 250 to 1500 lb. per hour for continuous operation. Capacity of more than 1500 lb. per hour requires heavy duty equipment, preheating, forced draft, and so forth.

Many laboratory buildings are equipped with the smaller type incinerators, the material being disposed of in smaller quantities, rather than being allowed to accumulate.

The only alternative is to bury carcasses, but this is not too satisfactory unless a very deep covering is used because of the attraction of rodents and dogs. Sometimes burying, combined with destructive chemicals, is used. Probably the only satisfactory method of disposal is by incineration, but this is expensive if large quantities of material are at hand.—A. F. GALLISTEL, *director of physical plant, University of Wisconsin.*

Interior vs. Exterior

Question: Should university buildings be designed for interior functions or outside appearance?—J.A.N., Pa.

ANSWER: This question might imply that it is impossible to do both. I see no reason why buildings designed for proper interior functions cannot have pleasing exteriors. If the inference here is that modern design is thought to be functional but not pleasing in appearance in its exterior, then it must be recognized that the observer is attempting to recognize good planning on the interior of the building, but is bound by tradition or convention when looking at the building from the outside. A modern building does not need to be "moderne" or bizarre in appearance. Most of the so-called "modernists" have done more harm to the design of contemporary or modern architecture than they realize. It might be said, at this point, that a great many architects, who claim they can design a modern building, do not properly understand the elements in contemporary architecture. Some well known firms seem to have been guilty of this practice. A modern exterior façade does not make a building modern or efficient in its function merely because of its exterior.

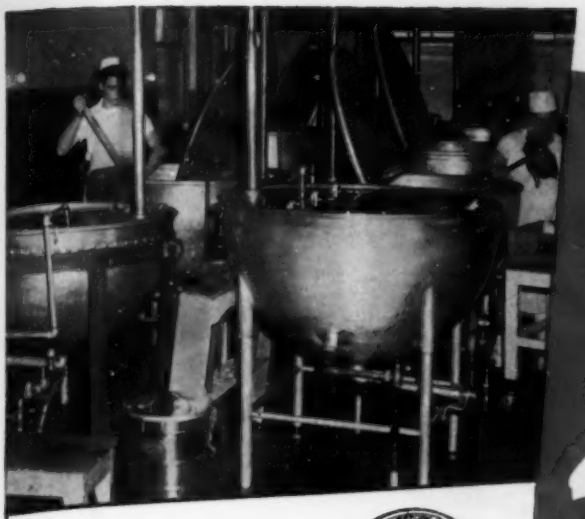
If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill. Questions will be forwarded to leaders in appropriate college and university fields for authoritative replies. Answers will be published in forthcoming issues. No answers will be handled through correspondence.

Concessionaire Sales

Question: We are interested in obtaining data regarding the concessionaire sales per person in attendance at athletic events in stadiums. Do institutions generally handle these sales themselves, or are they leased on contract? If the concessions are institutionally operated, how detailed an audit is maintained?—J.G., Neb.

ANSWER NO. 1: I believe that institutions generally handle concessionaire sales at athletic events on the basis of contract. This type of business is very specialized and is usually quite hazardous, being dependent to a great extent on the weather and the seasonal popularity. This season concessionaire sales at the State University of Iowa amounted to 14.83 cents per person attending football games and 5.9 cents per person attending basketball games. —F. W. AMBROSE, *business manager, State University of Iowa.*

ANSWER NO. 2: During the 1949 season at four home games, total attendance was 75,913 and total sales of concessions items (exclusive of football program) were $8,028.21, representing an expenditure of 10.6 cents per person. Some schools operate the concessions themselves; others, particularly in the larger cities where professional concessionaires have headquarters, sell the rights to such concessionaires. In our own case, purchases of supplies are made on regular purchase orders and paid like any other invoice. Complete information is thus available for auditing purposes. —G. F. BAUGHMAN, *business manager, University of Florida.*



Norfolk State Hospital, Norfolk, Neb.
(Regular kitchen chefs shown in photo)

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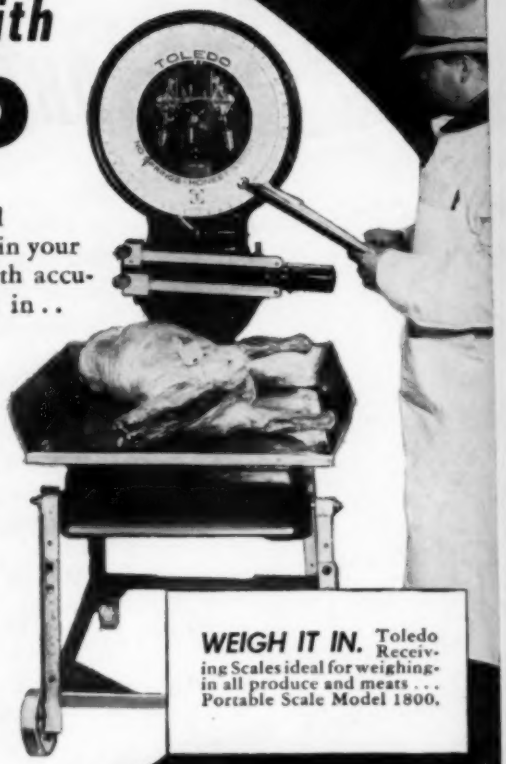

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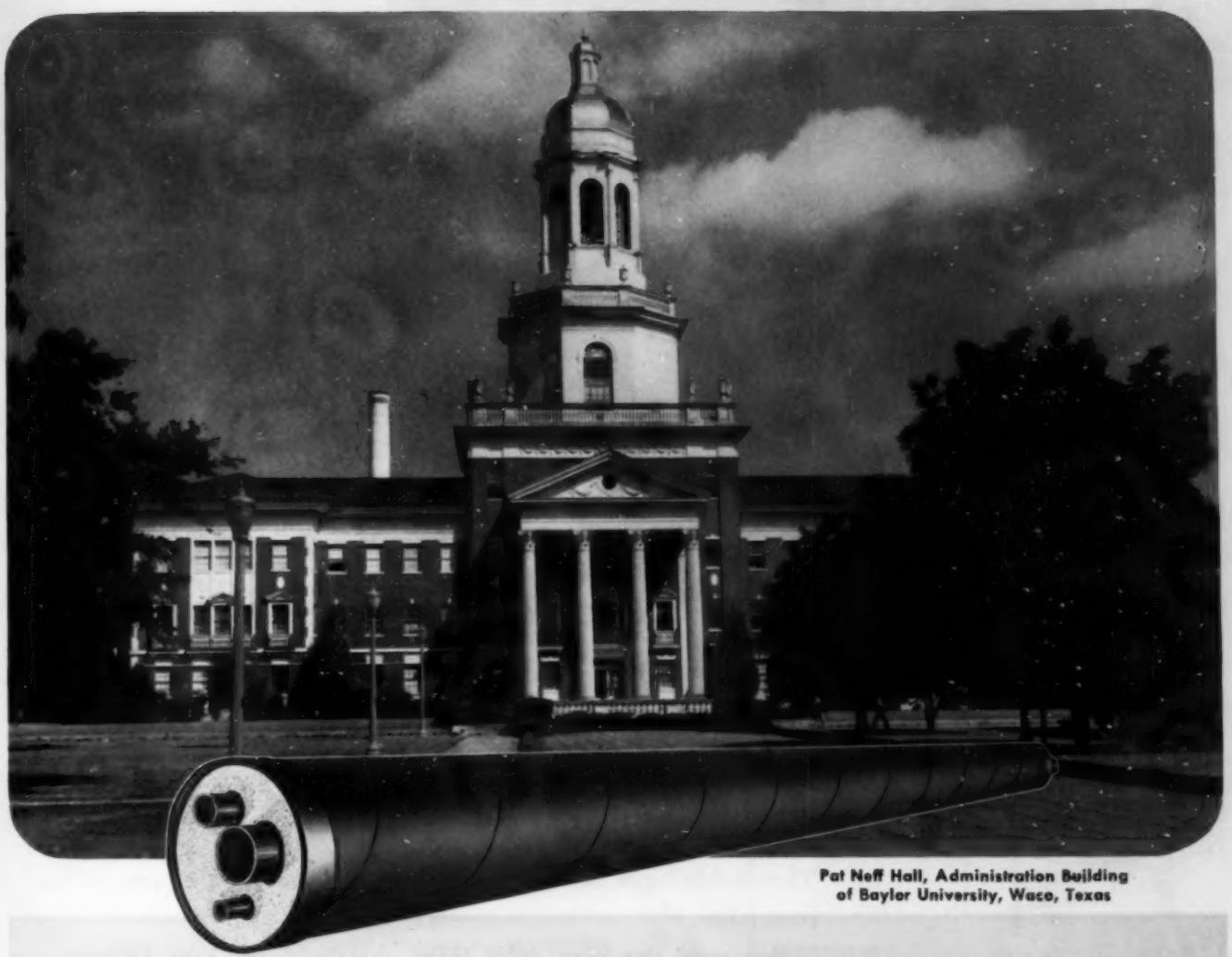

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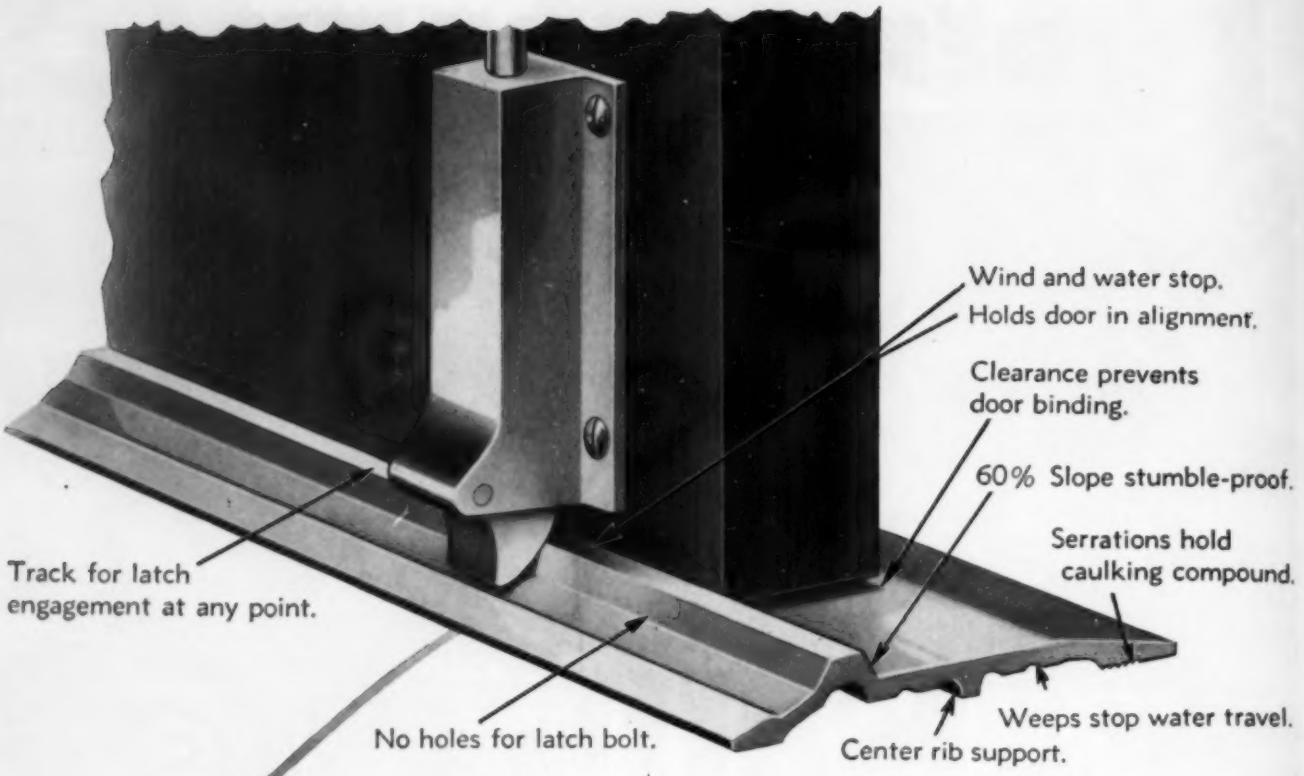
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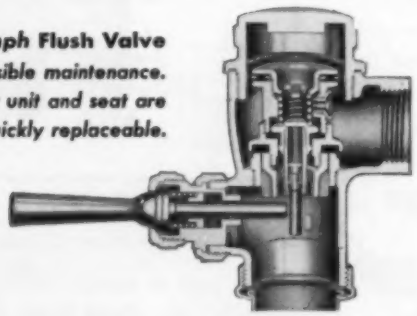

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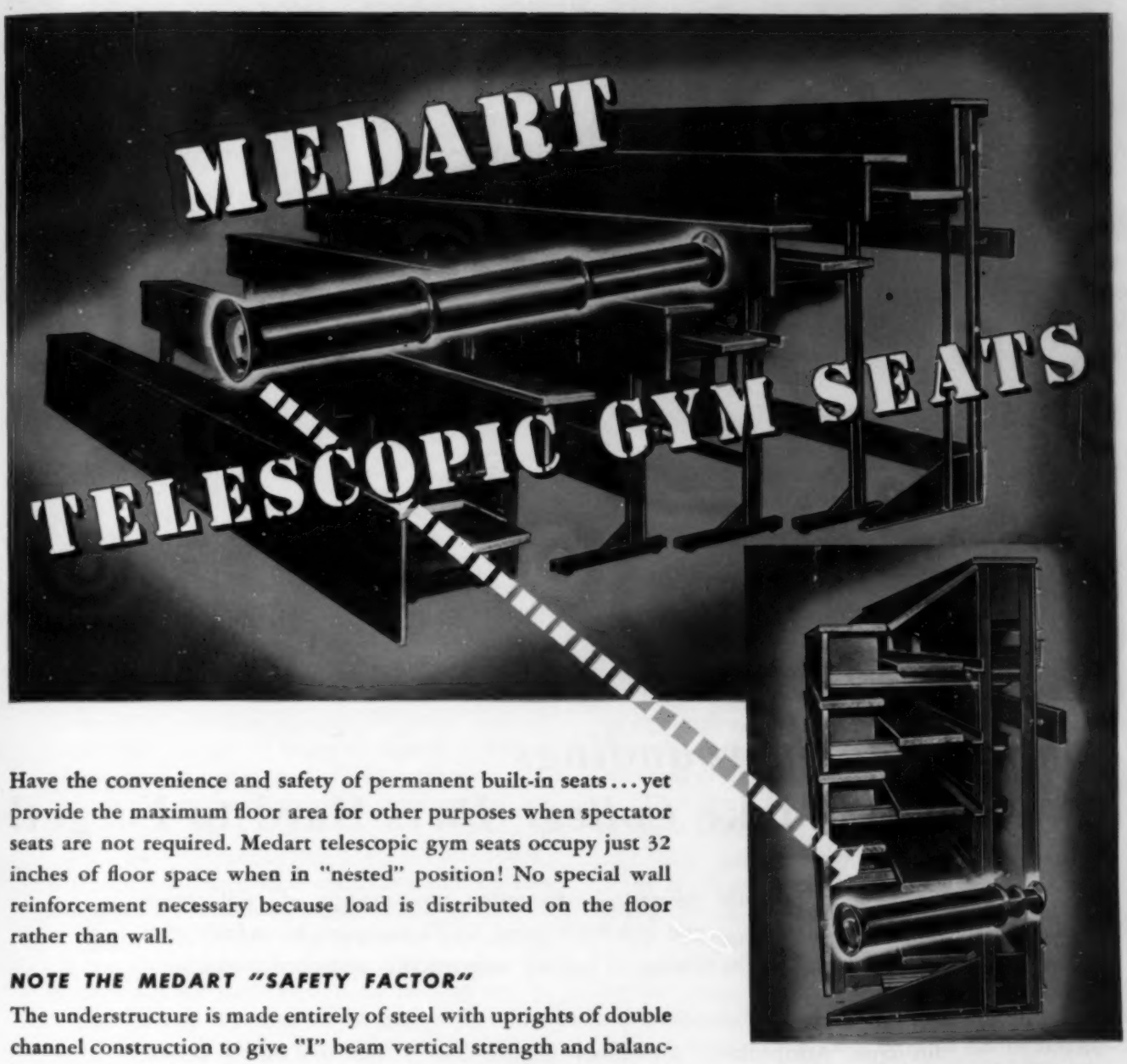

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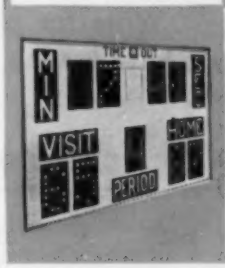

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GUEST EDITORIAL

Professionalization of College Business Management

JOHN DALE RUSSELL
Director, Division of Higher Education
Office of Education, Federal Security Agency

TO WHAT EXTENT IS COLLEGE BUSINESS AND financial management approaching maturity as a recognized profession of its own? How well does this calling measure up to the criteria of a true profession? These are questions that are frequently in the minds of college and university business managers and other interested people. On at least two occasions I have discussed these questions in addresses before groups of business officers. A review of the general characteristics of a true profession may assist in evaluating the progress made toward the professionalization of college business management.

1. A true profession attracts to its service people of excellent qualifications, with a superior level of intelligence, capable of being recognized as among the more substantial citizens of the community.

2. A true profession offers compensation that enables the one who follows it to live a good life, to enjoy a good standard of living, and to contribute financially and otherwise to enterprises and activities that make for community improvement.

3. The practice of a true profession requires the exercise of independent judgment. The member of a profession is not just a hired hand, carrying out the orders of others.

4. The members of a true profession have considerable cohesiveness as a group. They have a professional solidarity, mutual respect for other members of the profession, and quite commonly a jargon of professional terms with which they communicate with each other, to the mystification of outsiders. Usually there is a national or international professional organization which exerts tremendous influence.

5. A true profession is open only to those who have had extended scholarly preparation, specifically directed toward the type of work to be performed.

6. A true profession has a well organized body of literature containing the principles, facts and procedures related to its practice.

7. In a true profession there is usually an extensive research program for discovery and dissemination of new knowledge pertaining to the professional field, and for the critical evaluation of old procedures.

8. A true profession lodges in its members considerable authority over the control of entrance to the calling. Some organized body within the profession sets up standards for entrance and sees that they are enforced.

9. A true profession offers a career. It is a life work, affording opportunities for satisfying advancement within the profession itself. Any calling whose workers frequently leave it to take up other vocations has difficulty in maintaining its status as a true profession.

10. A true profession has its own recognized code of ethics, either explicitly stated or so well understood by its members and the general public that it needs no formal statement. This code of ethics governs the members of the profession in all their activities.

11. A true profession is recognized by the general public as such.

College and university business management has attained true professional status on several of the foregoing criteria. On others a good beginning has been made. Advancement could be made on some of the criteria with relatively little collective effort. On some of the more significant criteria, however, such as scholarly preparation, an organized and substantial body of literature, a research program for the development of new knowledge, and the control of entrance to the calling, a college and university business management at present falls considerably short of the standards for a profession.

More progress toward true professional status for college business management was made in the decade of the 1930's than in the 1940's. The war and postwar periods have introduced so many complex situations that college and university business managers have been closely occupied with immediate, current problems. They have had no time recently for concerted attacks on larger issues. Perhaps the decade of the 1950's will again witness a movement toward improved professional status for college business managers. Further progress requires action by organized methods, as well as individual effort, to live up to the highest standards of a true profession.

Looking Forward

Four Years Old

ONE STUDENT GENERATION HAS COME AND GONE on the college campuses of this land since COLLEGE AND UNIVERSITY BUSINESS was first published and distributed to college administrators.

Over that period of time, the magazine has addressed itself to the administrative problems involved in providing adequate facilities and instruction for the current college generation. Housing congestion, high food costs, labor turnover and recruitment, investment problems, maintenance technics are typical of the areas in which the magazine has attempted to shed light and help. It has not attempted to be an oracle, spouting words of wisdom, but rather a medium for reporting successful experience and projects in the business side of higher education.

Who gets College and University Business? At the present time, more than 6000 of the key administrators in the field of higher education and residential academies are receiving and reading the magazine every month. More than 1800 colleges, universities and academies are now on the mailing list. Readers are those persons who occupy the strategic business positions on the campus. Upon their good judgment and financial experience must depend the future of colleges in this country. If College and University Business may be of help in the making of some of those decisions affecting an institution's future, it will have properly served its editorial function.

Slow Progress

IT'S A SAD REFLECTION ON THE AMERICAN SCENE, and more particularly on higher education, that it became necessary for the United States Supreme Court to rule on the question of segregation in American colleges and universities. Colleges, citadels of freedom and dedicated to the search of truth, are not the places where segregation should be permitted or equality of opportunity denied.

The Supreme Court's rulings that Heman Marion Sweatt must be admitted to the University of Texas Law School and that G. W. McLaurin be permitted to attend classes at the University of Oklahoma without segregation are important, not because they recognize that a Negro should receive equality of opportunity but because they re-affirm the fundamentals of our democracy—the freedom and dignity of the individual, without which "our way of life" becomes a rather hollow mockery.

In the Right Direction

OBSERVERS OF THE HIGHER EDUCATION FIELD HAVE been at a loss to understand why the business managers of colleges and universities have never organized on a national basis. The business managers seem to have taken a stubborn delight in maintaining their provincial isolation from their colleagues in other parts of the country.

It is interesting to note that the Central Association of College and University Business Officers in its recent annual meeting at Urbana, Ill., passed a resolution that authorized the executive committee of the association "to enter into negotiations with representatives of the other business officer associations, including the National Association of Educational Buyers, for the purpose of organizing a national organization to represent all business officers, with a national meeting to be held at least once every three years."

Commenting on this problem, Lloyd Morey, comptroller of the University of Illinois, observed that "The development of our professional organization has differed from that of other administrative and academic groups in that it has been regional rather than national. This has both advantages and disadvantages. One advantage is closer proximity of meetings to a larger proportion of membership, with less cost of transportation and probably greater attendance. To this may be added somewhat greater unity of interest. The disadvantages are that each organization tends to be more provincial in character, that experiences are not shared or enjoyed as widely as would be possible in one organization, and that the profession lacks a solid and united front on problems that are of general and nationwide concern. The last named point was particularly evident during the recent war, and continues to be important in current government relationships. I list as one of my major disappointments the inability of our business officer organizations to get together on a permanent basis. . . . Now at long last we have at least a standing inter-association committee. Created two years ago, it has given good accounts of itself, and is deserving of our hearty support."

In order that college business officer associations may more effectively coordinate their work, it would appear to be an evidence of wisdom seriously to consider the proposal of the Central Association of College and University Business Officers that a national organization of the profession be established. It's time that the movement came of age.

ENDOWMENTS:

How much did your college earn last year?

JOHN I. KIRKPATRICK
Treasurer, Lehigh University
Bethlehem, Pa.

ALL OF US HAVE TRUSTEES. SOME trustees ask questions. Some trustees make comparisons. Some trustees say, "I understand Alpha College earned 5.3246 per cent on its investments last year and Beta University reported 4.978 per cent. How come our return was only 4.257 per cent?" This seems like a reasonable question and one which we should like to answer for them and for ourselves.

All of us are interested in making comparisons, especially in a field like investments, because it may help us to know how we are doing and how we have done. It is too easy to throw up the hands and say that all comparisons of investment results are impossible and valueless, that too many differences exist and too many factors are involved. It is true, of course, that comparisons in many cases are valueless. It may be helpful, however, to see if we are attempting to compare some things which are not alike, to determine why some comparisons are frustrating and invalid, and to see if some of the differences that presently exist could be wiped out.

FIVE IMPORTANT FACTORS

The more important factors involved in a comparison of investment results are (1) a reasonably long period of time: at least five years and preferably 10; (2) average rate of income earned each year; (3) the book value of endowment funds principal at the beginning and end of the period; (4) gains and losses on investments at the beginning and end of the period, and (5) market value of investment assets at the beginning and end of the period.

Even with all of this information, comparisons are futile in cases where there are basic differences in accounting. Few individuals, if any, will attempt this comprehensive a comparison. Trustees and treasurers want the "quickie" comparison resulting in the familiar and frequent question "How much did you earn last year?" The answer is seldom in terms of annual salary, but always something like 4.1 per cent or 3.7 per cent or 4.9 per cent. And you seldom ask the next five or seven questions that may be necessary to understand the 4.1 per cent answer and to accept or reject it for comparative purposes.

Let us see how available the information is on investments and investment results. Our financial reports or treasurer's reports or controller's reports still glory in being different, and justifiably so in some instances because our problems differ in number, kind and degree. In the field of investments, many institutions report their investment lists in detail. Some institutions report all information on investments, market values, rates of return, and gains and losses on investments, but many do not.

As an example of differences in reporting, take the six private institutions with endowments of over $50,000,000. Four show their securities investments in detail (although one does not show book values for securities listed), one furnishes an excellent summary with no details, and one provides only a very rough summary. Three report market values of their holdings; three do not. Only two report their rate of return on investments.

Should our financial reports be reasonably complete and informative when it comes to investments and investment results? I think so. In the first place, as public or private institutions, we have an obligation to our alumni and friends, our benefactors of the past and of the future, to report on our stewardship of funds which have been given or bequeathed to us. Second, many of our colleges and universities now present rather complete information on their management of funds, so that the lack of information is more conspicuous than in previous years. The trend toward complete information is a healthy one. I suppose one of the reasons for only partially complete information is the difficulty of reporting what is in some instances a complex situation and the resultant fear of misunderstanding. On the other hand, greater misunderstanding may arise as to the motives for withholding information.

For purposes of our discussion, let us confine investments to endowment funds investments. Many institutions have investments of plant funds, general funds, and reserve funds. As a general policy, it is not desirable to pool these investments with endowment funds investments, but it is done in some cases. In most cases, they are separately invested.

USUALLY TWO BOOK VALUES

As we discuss rates of return on endowment funds, we should keep in mind that there are two book values of endowment funds that can be involved in most institutions. This situation arises out of undistributed gains and losses on pooled investments. Practically all of us have most of our endowment funds in pooled investments. We accumulate gains and losses on these investments in a reserve fund, and do not distribute them to the individual endowment funds. (In the rare instance where they become unreasonably high, they should be distributed.) As a result, for the most part, we retain the book values of endowments as they were originally es-

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From a paper presented before the Eastern Association of College and University Business Officers, Atlantic City, December 1949.

tablished: the historical value. This historical value is one book value of endowment funds; the other, of course, is the historical value plus or minus the accumulated gains and losses on investments, or the total endowment funds.

Most of us have some endowment funds which are separately invested out of either necessity or desirability. To these we distribute each year the respective gains or losses on investments, and hence lose the original or historical book value of the funds. In many cases, these make up a small or negligible portion of our endowment. In the case of one very large university with 95 per cent of its endowment funds pooled, the gains or losses on pooled investments are distributed to each of the participating endowment funds each year. The distribution is based on "participation values" calculated by an accounting formula which employs the market value of the assets contributed or withdrawn and the market value of the assets composing the pool. This annual distribution of gains and losses on pooled investments has the obvious advantage of more nearly accurate accounting not only for gains and losses but also for investment income. It has the obvious disadvantage of a yearly chore as against a less accurate distribution once every 10 years, 25 years, or perhaps even never.

RATES OF RETURN VARY

My only reason for developing this background on historical book value and total book value of endowment funds is that in some instances you and your trustees may not realize which book value the *other* college is using in reporting its rate of return and in some instances you and your trustees may want to use both book values at your own institution in determining your own investment results. In all cases, I am assuming that no institution distributes any of its investment income to the gains and losses on investment account.

When you pick up 25 university financial reports at random, you will probably find that a dozen of them say nothing about their rate of return on investments. The rest of them will report a wide variety of rates of return: average net return from all investments; earned rate on pooled funds investments; gross income from pooled investments; average of investment balances; rate of return on book value of endowment funds; return on book value of endowment funds, excluding mortgages, special holdings, and trusts; average yield on all stocks and bonds owned in endowment fund account; yield on market value of investments. Two or three of these rates of return may be figured on the same basis and may be comparable, but most of them, and perhaps all of them, are not.

What rates of return are most significant? The answer naturally will vary somewhat owing to special situations at various institutions. But for the large bulk of us trying to measure investment results, we should know the rate of return on pooled investment assets (and that includes uninvested cash), the rate of return on separately invested assets, the rate of return on total investment assets, *i.e.* the total endowment funds, and the rate of return on the historical book value of total endowment funds (or on the historical book value of pooled endowment funds where the separately invested endowment funds make up an important part of the total).

Let me use a simple illustration. Two new colleges each have endowment funds totaling $1,000,000 and each has pooled its investments. During the first year both funds earned $50,000, or 5 per cent. In a later year Fund A sold some of its securities, made a profit of $250,000, and increased its annual income to $55,000. Fund B did not sell any of its securities and continued to earn $50,000, or 5 per cent. On the basis of total book value of endowment funds, Fund A earned only 4.4 per cent ($55,000 income on $1,250,000 invested) while Fund B continued to earn 5 per cent. On the basis of historical book value of endowment funds ($1,000,000 in each case), Fund A earned 5.5 per cent and Fund B, 5 per cent.

It would seem desirable to know both kinds of investment performance: (1) the short-term results reflected in the annual income earned on the funds that were available to the investment committee during a particular year, and (2) the longer-term results reflected in the annual income earned on the original value of the funds or assets turned over to the investment committee. This latter rate of return on the historical book value is important because it gives consideration to the undistributed gains and losses on investments.

Some institutions report the rate of return on the market value of their investment assets. The current yield on market value is a necessary tool for investment officers and investment counsel in arriving at decisions to buy and sell securities at a particular time. In arriving at such a current yield on stocks, they use the current dividend rate or an adjusted income rate. Taking the actual investment income received during a fiscal year and applying it to the market value of the investment assets at the end of the year will produce a rate of return that is rather meaningless. The actual income received will include income earned on assets disposed of during the year and only part of the year's income on assets purchased or received during the year. Moreover, using the end-of-the-year market value fails to take into consideration the changes that occurred during the year in the funds which the investment committee had at its disposal.

INVESTMENT POLICIES DIFFER

Supposing all of us use the same basic types of rates of return, what factors are there that will result in different rates of return? The major factor, of course, is the wide difference in investment policies and programs which we pursue. There is no single best investment program for all institutions. Valid differences of opinion always will exist between the more conservative and the more liberal programs.

Within the last year I made a study of the management and diversification of investments of a dozen representative private institutions for a 10 year period and found very wide differences in policies and programs. The actions of the institutions set no particular patterns even where the institutions were of comparable size or where they seemed to be alike in other respects.

I think it can be said that the wide variety of policies and programs is too wide; there are too many extremes. Basically, colleges and universities have the permanency of endowment funds principal and income in common. We shall always have and always want the conservative program and the liberal program, but it is undesirable for an investment program to be ultra-ultra-conservative or ultra-ultra-liberal.

A second factor that can account for differences in rates of return among institutions is that certain securities, in varying amounts, are held by universities and colleges out of necessity

because of restrictions attached to gifts or out of desirability because of particular local or other reasons. Where these investments are separately invested, as most of them probably are, they will of course have no effect on the rate of return on pooled investment assets.

A third factor affecting the rate of return is the particularly large blocks of investments held by some institutions at very low book values. Blessed are they who received stocks or real estate years ago, are still holding them, and have seen their value as well as their earnings grow in leaps and bounds.

A fourth factor that affects rates of return is the simple one of inclusion or exclusion of uninvested cash. A rate of return on investments or on invested funds which does not include uninvested cash is not complete as a measurement of investment results unless the amount of uninvested cash is unimportant at all times.

AMORTIZE BOND PREMIUMS

A fifth factor is the amortization of bond premiums. There seems to be no question that good accounting practice requires that bond premiums should be amortized out of income each year over the life of the bonds. Some institutions do not do it; others do it partially; some do it completely but on an approximate basis; others employ the straight-line method of amortizing each income period. In one case, a large university recently has adopted the policy of writing off the entire bond premium at the time of purchase, a rather drastic procedure that readily can take away from income in a particular year more income than was actually received.

A sixth factor is the accumulation of bond discounts. One school of thought advocates the conservative policy of not accumulating the bond discounts each year, even though such policy is inconsistent with the amortization of bond premiums. Their reasons are that the bonds sold for less than par because of the risk involved as to whether the principal will be paid and, as a general principle, they dislike to write up the book value of an asset. Under this procedure when the bond is redeemed at par, the difference between the lower book value and the higher redemption price is credited to gain on investments and not to income. In actual practice the procedures vary. Most institutions do not accumulate bond discounts; others do. Where the bond is of highest quality, I cannot see why the accumulation of bond discount is subject to any question.

A seventh factor is the amortization of premiums on callable preferred stocks. Here, again, good accounting practice dictates that some of the income received from preferred stocks that were purchased above their call price should be used to write down the book value of the stock. Perhaps the best clean-cut rule to follow is to use the straight-line method of amortizing the premium to the first call date, as some institutions do. Others use a judgment factor by crediting income with a fair return in comparison with other stocks and using the balance to write down book value. One institution recently has adopted the policy of setting aside its preferred stock income in excess of 3½ per cent in a reserve for losses on calls or sales of the stock.

On the subject of cumulative preferred stock purchased when any of its dividends are in arrears, more conservative accounting practice treats the receipt of dividends in arrears as a return of principal and not income.

An eighth factor is depreciation of improved real estate and investments in residence halls and other educational plant. It is taken for granted in accounting circles that a reasonable and adequate rate of depreciation should be charged against income each year in order to preserve endowment principal.

A ninth factor is the base period used for determining the amount of investment assets or endowment funds on which to calculate the rate of return. There are essentially only four different base periods that can be used, and our institutions are using every one of the four.

I have seen a university figure its rate of return on the book value of its funds at the beginning of the year; a rate of return on this basis seems valueless where funds have been received during the year by gift or bequest or where gains or losses have been sustained on investments. Some institutions use the book value at the end of the year; this procedure is equally valueless where any noteworthy changes in book value have occurred during the year. Other institutions strike an average of the book values at the beginning and the end of the year, which is an improvement over the other two bases. The most nearly accurate procedure is to arrive at an average book value based on the book values at the beginning of each of the 12 months.

A tenth factor is the difference in accounting for income on a cash basis or on an accrual basis, mentioned here for the sake of completeness.

An eleventh factor is the handling of stock dividends. There are three conceivably different ways of handling stock dividends—as principal, as income, as part principal and part income—and our institutions use all three. One school of thought states that we have an obligation to try to distinguish between principal payment and income payment. Where a stock dividend has been paid, it is claimed that it should be treated entirely as income if the corporation actually has earned at least the equivalent amount during the period covered by the dividend, and that it should be treated proportionately as income and principal if the corporation has not earned as much as the equivalent amount of the dividend during the period.

WHEN DIVIDEND IS INCOME

On the other hand, the predominant accounting opinion and court decisions usually base their conclusions upon the principle that a stock dividend is income only if the proportionate interest of each shareholder in the enterprise is changed. A stock dividend upon common stock, payable in common stock, is not considered income because the proportionate interest of each common stockholder in the business is not changed. The United States Supreme Court has held that a dividend in preferred stock upon common stock, where some preferred stock was already outstanding, is income. Similarly, a dividend payable in common stock upon preferred stock is income. On the other hand, if no preferred stock was outstanding previously, a distribution of preferred stock pro rata upon the common stock leaves the proportionate interest of each shareholder unchanged and so is not income.

Pennsylvania's "Principal and Income Act of 1947" for trust funds and estates declares that all stock dividends of the same kind and rank as the shares on which such dividend is paid shall be deemed principal; all other stock dividends, including those payable in securities of other corporations, shall be deemed income.

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KENNETH E. FARRIS
Supervisor of Inventory and Receiving
University of Oklahoma

INVENTORY AND CENTRAL RECEIVING are two valuable activities to any organization, particularly to institutions of higher learning. Inventory is valuable to an organization in many ways, among them the following:

1. Responsibility and accountability can be established.
2. The records can disseminate information valuable to stock control and purchasing.
3. Specific data concerning records, location, cost and condition of property are made accessible.

The problem of controlling and maintaining adequate property records is always difficult. Much consideration should be devoted to the planning of an inventory procedure in order for the procedure to be adequate yet not too complex. An inventory of personal property progresses slowly because accuracy instead of speed should be stressed. The type and quantity of properties found in educational institutions tend to slow down normal progress because of articles of special apparatus and equipment, such as that found in laboratories and departmental storerooms.

CONFERENCE BEFORE INVENTORY

Prior to the actual physical inventory of a department or section at the University of Oklahoma, a conference is held with the department head in order to unify the effort and to avoid any misunderstanding and to inform the department head of his responsibility as outlined in a memorandum from the president to the administrative heads of all budget units.

After the conference is held, the physical inventory of all university property in the custody of a particular department is begun. All property of a permanent nature and costing in excess of $5 is included in the inventory. This is a very broad determining factor and many times certain items require considerable appraisal in order to determine whether or not they should be included in the inventory.

Each piece of property inventoried is identified as property of the state by means of affixing a brass name-

plate bearing an enameled inscription "University of Oklahoma." These nameplates have an advantage over stencils, rubber stamps, and paint because they present a neat appearance and can be placed in an obvious location which saves much time when making a recapitulation each year. They are easy to apply and, in the case of the University of Oklahoma, comply with House Bill No. 113 of the state legislature, which states that all property is to be coded, tagged or marked in such a manner as to be readily identified as property of the state. Each nameplate bears a four-digit classification and identification number combined with the state title.

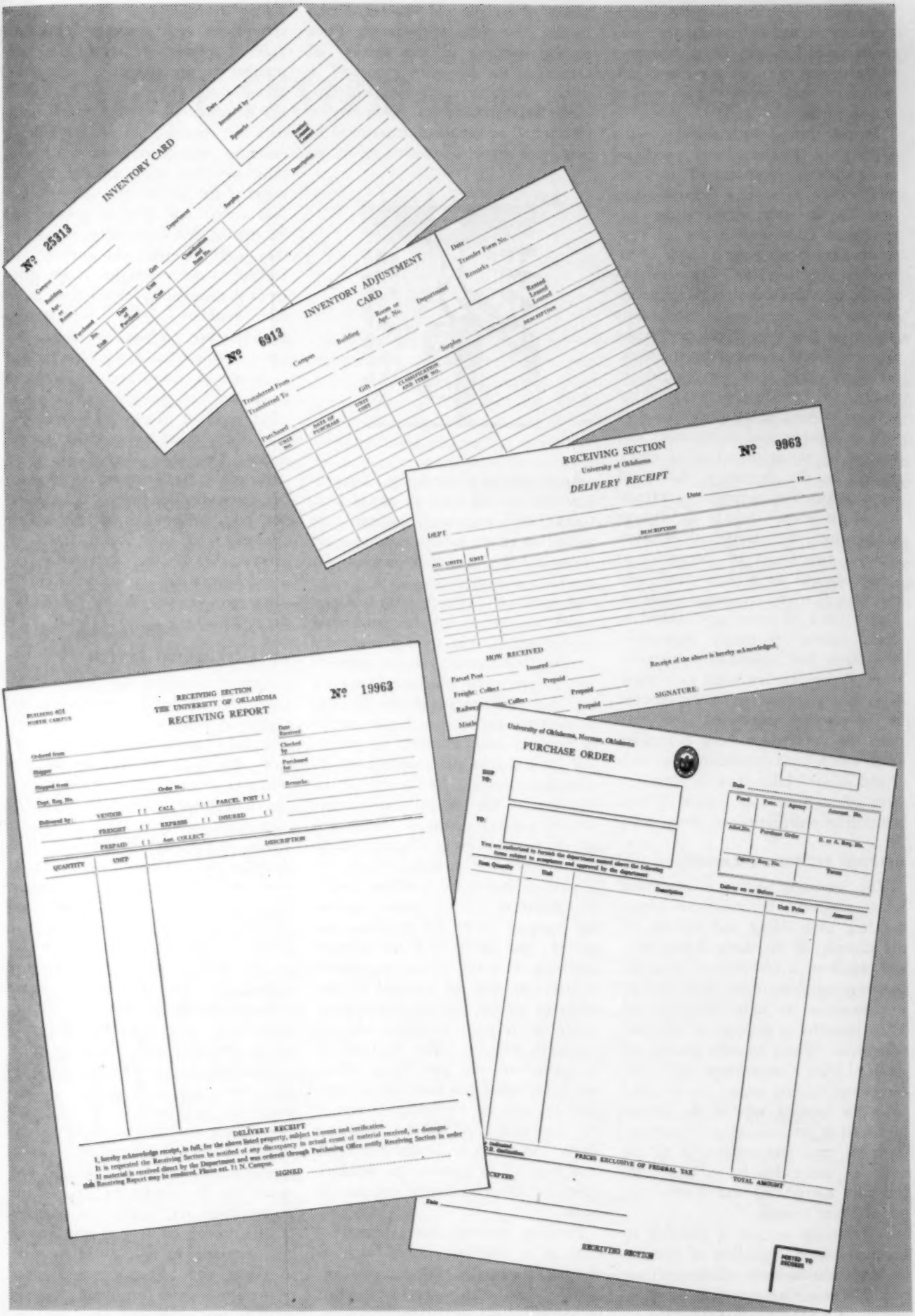
Each piece of property has a designated location where the nameplate is to be placed which saves time both in affixing the plate and in locating the serial number when recapitulating. The nameplates are affixed to wooden objects by means of small nails and to metal objects by means of drilling the object and inserting metal drive screws. One other method is that of using a hog ring through one of the holes in the nameplate and securing it to the object by means of a hog ringer. An example of this type of use would be a glass or plaster lamp where the ring is fixed on the harp or bracket which holds the shade. Oftentimes it is impossible to place tags on certain items in any of these ways because of delicacy and size; in such cases, an electric stenciling instrument is used.

All property is classified and is placed in one of 197 different classifications, each having a four-digit number which appears on the nameplate. For example: The classification for furniture is 2000 and under this classification chairs are 2010. Various types of chairs are then listed by different classification numbers, such as a tablet arm chair is No. 2011, a straight chair is No. 2012, a revolving chair is No. 2014, and a folding chair is No. 2017. Each item within each classification group has an identification or serial number. For example: The first tablet arm chair that was inventoried had the classification number of 2011 and the identification or serial number of 0001. This system provides for a possible 9999 items in one classification.

USE PUNCHED CARDS

The information recorded on the original inventory card at the time of the physical count includes cost, the date of purchase, source, department having custody, identification and serial numbers, building, campus and room location. These cards are rendered to the university statistical service which handles all university records on punched card machines and our inventory is then recorded on key-punched cards. Thus, it is possible to obtain data hurriedly regarding accountability, location, equipment in custody of a certain department, or to find out how

From a paper delivered at the regional meeting of the National Association of Educational Buyers at Fort Worth, Tex., 1949.



Forms used in inventory and receiving procedures at the University of Oklahoma.

many pieces of a certain type of equipment are in use throughout the institution or to list property with respect to its source, such as purchases, gift, purchased and granted war surplus, and so forth.

Proper control with respect to the moving of property and purchases made without cognizance of an inventory section presents a difficult situation. The inventory section at the University of Oklahoma is one of four sections comprising the division of inventory and receiving. The receiving section provides a control factor necessary for new property and the hauling section of this same division provides a control factor necessary for the transfer of property from one location to another. The hauling section does the bulk of moving of all institutional as well as departmental equipment. This section, by means of a hauling order, renders to the inventory section all the necessary data pertinent to a transfer which would include the change in location, the change of accountability, disposition of property no longer desired by a department, and the classification and serial number. The control of what is classified as "hand moves" is nearly impossible. We have had splendid cooperation from all departments when such transfers take place. After a department is completely inventoried, we leave with the department head a transfer form which he is to render when such "hand moves" take place or when an item of an inventory nature is constructed by a departmental shop.

KEEPING RECORDS STRAIGHT

The inventory section is concerned when property is transferred from building to building and remains in the custody of the same department, and when it is transferred from department to department even though it remains in the same building, and when property is disposed of or manufactured. When transfer sheets are received from a department and when completed hauling orders are received from the hauling section, the inventory section prepares an inventory adjustment card and renders it to the office in order for it to make the necessary corrections and transfers of the machine records.

A receiving section is valuable to an organization, regardless of whether the organization has an inventory control. The receiving section at the University of Oklahoma handled 56,071 pieces of freight and express during its first 23 months of operation. Prior to the opening of this section all carriers in the area were requested to deliver, without exception, all shipments consigned to the University of Oklahoma, regardless of department or personnel attention referred to, to the

central receiving warehouse. In conjunction with this act all parcel post, C.O.D. and registered packages are picked up at our faculty exchange and taken to the receiving section for checking and inspection.

A copy of all purchase orders prepared and issued by the purchasing department is sent to the inventory section. These orders contain shipping instructions to the vendors and specify that the merchandise should be sent to the receiving section. Upon receipt of property from a carrier the receiving clerk checks the property for an identifying mark. By means of an alphabetical file of purchase orders filed by vendors' names or a numerical file of purchase order numbers which has the vendors cross-referenced, he is able to locate the purchase order. The shipment is then checked against the purchase order for specifications, quantity and damages. If the material checks, a receiving report is prepared in triplicate and the material is then delivered to the ordering department, where the original is signed and the duplicate retained. The triplicate is forwarded to the purchasing office, which furnishes data sufficient to complete the records. Proper utilization of the duplicate copy of the receiving report can assist a department since it is required to approve the vendor's claim for materials before payment is made.

Property received that is not covered by a purchase order, such as samples, literature, manuscripts, exchange films, and so on, is handled by the receiving section and the consignee is required to sign a delivery receipt for such property. This provides a permanent record and the number of the receipt is cross-referenced on the waybill in the same manner in which all purchase order numbers are recorded on all waybills in order to provide reference. All waybills are filed alphabetically by the name of the shipper and are separated into collect and prepaid groups and further divided, depending on whether they were received via express, rail freight, or motor freight. If any shipment is received by parcel post, registered mail, or C.O.D., a separate log for reference purposes is maintained since receipts are not available for file.

A special data sheet is prepared daily for the university accounting office in order to provide it with information concerning collect shipments. This sheet lists the ordering department, the purchase order number, the waybill or express ticket number, and the amount of the collect charges. From these data it is able to process the monthly statements rendered by carriers and properly charge the collect amount to the various departments.

ADVANTAGES TO SYSTEM

Central receiving has many advantages, one of which is avoiding the confusion and possible loss of merchandise brought about by many carriers delivering to the various and scattered departments. Another distinct advantage is that the receiving section is able to take immediate action in the case of damaged merchandise and can have proper inspections made and claims filed instantly, thus saving time and money and avoiding a possible argument with a vendor when discovering some six months after delivery that merchandise is damaged. Also, merchandise can be replaced quickly so that the ordering department is not without the particular item any great length of time.

Many procedures concerning receiving have been omitted, but I have attempted to present the general outline. There are other procedures dealing with material not complying with specifications, lack of information furnished by the vendor to identify the proper consignee, inspections required of departments on delicate instruments and apparatus so as to avoid an extra uncrating and unpacking, and other related procedures involving delivery services, personnel and other records.

RADIAL SYSTEM *of college administration*

ALLAN R. CULLIMORE
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Newark College of Engineering
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PERHAPS AN ARTICLE OF THIS KIND should be introduced by saying that it is like the paper once delivered before a scientific society, which was a most excellent and original paper, except that the original ideas expressed were not excellent, and the excellent ideas were not original.

This particular attempt at functional design is not especially original. The ideas expressed here may not have been gathered together before in exactly the same form, but the ideas so gathered together are not in themselves original. Our greatest debt is to Chester I. Barnard, who contributed much toward the design of the structure of world planning in the functioning of the United Nations.

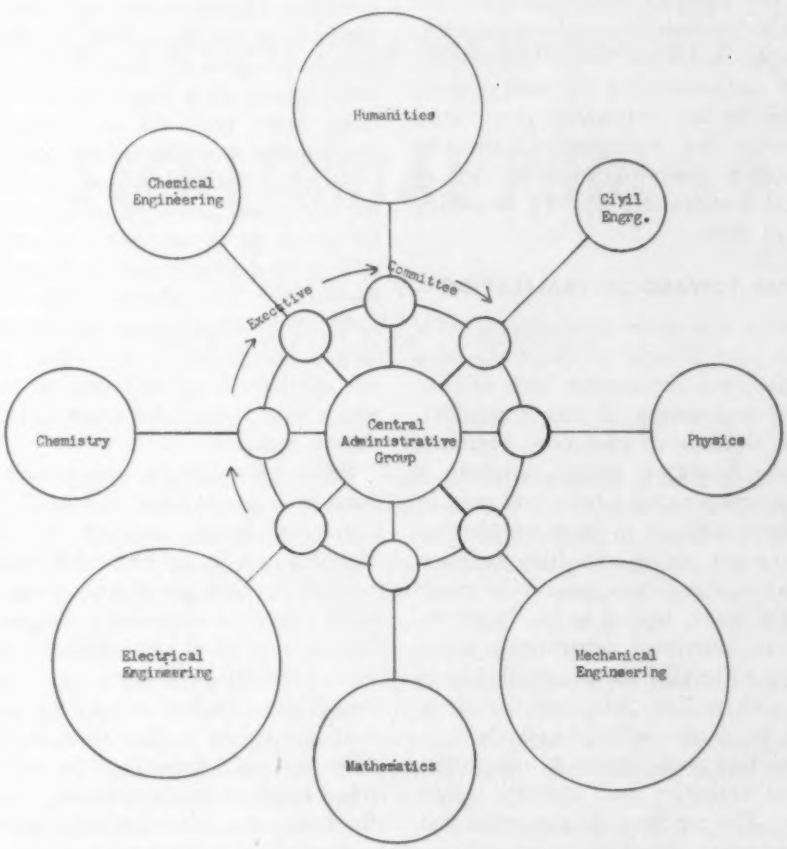
The basic idea in functional design is, as it is in any design, to develop something that will meet the unique and specialized needs of a particular situation, rather than to impose upon a particular situation some traditional method or form that has perhaps outgrown its usefulness, its efficiency, and its effectiveness.

In the case of this particular project or design, we were faced directly with the problems which exist in an institution of learning—in this case, an engineering institution, where there are departments of all sizes, many of them highly specialized, such as the professional departments of engineering, and some of them service departments, serving professional departments, such as English, history and so forth.

The problem was to place all these departments in a workable situation with respect to each other, where each could maintain a reasonable independence and autonomy. An over-all administrative head, such as a dean or president, cannot be expected to be competent concerning the details of the specific technical and scientific problems that face each one of the professional departments. There were certain fundamental principles which seemed to require composition, in the sense that any organization or any organizational pattern has as its basic principle the composition of the points of view of the units of the organization, in order that the primary purpose of the organization *as a whole* may be developed.

So often in educational work we find that there does grow up between the administration and the faculty a certain line of cleavage which is not for the best interests of the institution as a whole. This may arise from a variety of sources. While we will not try to analyze the reasons for this, it might be well to point out a few positive things which become very important when we undertake the design of an educational organization.

A question will arise immediately at this point as to the function of the faculty as a body. It might be said that the function of the faculty is to



Large and small departments, through the medium of representation on an executive committee, are kept in contact with the central administrative group.

determine, as a legislative and judicial body, the general shape or form of the organization as a whole, and to act in whatever legislative and judicial capacity is for the interest of the institution and its policy, and at the same time promulgate such procedures and laws as would ensure that the organization meet the particular objectives which it is designed to approach. It is thought that this idea of the faculty having judicial and legislative powers, but not executive powers, follows along sounder lines than to confuse the functions borne by the executive and legislative branches of any form of government or organization.

The work of administration, execution and the clerical and financial work involved in any department or unit or group are generally not relished by the professional person having a background of science and technology who may be in charge of the department. Such men are usually chosen for their scientific background, their ability to handle and develop scientific or technological research. If we add to that the responsibility for building up a competent technical staff and if we try to hire a man with the proper professional background who is also interested in teaching, in young people, in science, *and* in administration and finance, we are faced in many cases by an impossible proposition. Usually we compromise, choosing someone possessing one or two of these qualifications but not necessarily all of them.

TENDS TOWARD CENTRALIZATION

Also, it is quite impossible to ask a man who is head or chairman of a professional department, such as electrical engineering, to take a considerable schedule of classroom exercises, which preempts pretty definitely a large amount of his time, and then in addition ask him to assume leadership in research or in consulting practice. This, in many cases, results in much of the work having to do with the various individual departments gravitating to certain secondary officials in the college—the dean, associate dean, and so forth—who already have a heavy load with respect to nonprofessional activities and students' problems. The tendency in the traditional organization, therefore, is toward centralization. To relegate to central administrative officials powers which involve technical details—which should be discussed, decided and executed as near the point of first contact as possible, at a point where technical competency exists—is certainly an unsound procedure.

In the second place, in every specific technical and service department in an institution of any size, there are certain young men who have entered teaching who are, by nature, apt in work of administration, the work of advising students, and the work that involves clerical and technical procedures. Such young men, while many times not the best teachers and sometimes indifferent research men, are well fitted to act as administrators, particularly in connection with the technical work in the field in which they are most competent.

ALL ON SAME LEVEL

With these two fundamental propositions in mind, we set out to develop what Mr. Barnard has envisioned as a plane, or a horizontal organization, where the decisions do not have to be referred as they are in a line organization and where the various divisions or sections or departments are all handled on the same level.

Perhaps the best example of this would be a group of men representing nations—in this case, divisions or departments—who sit down at a table, some representing large and rich nations, some populous and powerful departments, but all working together in an organizational pattern in which the rights and privileges of the smallest nation or department are comparable with the rights and privileges of the largest. The administrative head simply holds these various departments or groups together so as to keep any one of them from deviating too far, which would make the organizational pattern lopsided.

Perhaps it might be just as well to think of it as the large and small departments being attached to the administrative group by rubber bands, through the medium of representation on an executive committee, the president, dean or chief administrative officer and his staff, with their various responsibilities, having in hand the ends of all the bands as they come to the center and each department being attached by these bands extending radially from this administrative center, so that when a department tends to fly out, an ever increasing pressure will be brought upon the individual group or department to keep it within its circumscribed orbit. This pressure will be very slight when the deviation is small but will tighten up to the breaking point if one department flies out too far.

This involves a departmental organization consisting of a chairman as head of the department, whose position is that of a presiding officer, rather than an executive as we understand it—one who calls the department together, talks over departmental policies and presents to the administration, and incidentally to the faculty, the needs of the department and those matters of policy which require administrative and faculty action. The work of the department itself, so far as the clerical, executive, financial and academic details are concerned, is handled by a departmental associate, usually of the rank of an assistant professor, who takes the place of the dean of the college, to a considerable extent, so far as the strictly professional work is concerned.

PLAN RELIEVES DEAN

It perhaps should be pointed out that in this particular type of organization the handling of students in the freshman and sophomore years would fall to the lot of the executive associates in the service departments of mathematics, physics, English and so forth, the contacts being made on the basis of the young students' performance in these various fields. In the upper years, however, this work would be taken over by the professional department in which the student was taking his work, such as the department of civil engineering. This means that contacts with the students are made in the first two years on the basis of their success or failure in any particular subject, while in the last two years the contacts are made on the basis of their performance in the field of their professional choice. This particular arrangement, t h e r e f o r e, tends to lighten the load of the dean and to let him have a larger part in the general over-all planning and development of the institution and its policies. It has been found that the results from this plan show a definite increase in morale, a feeling of pride and independence among the various groups, coupled with the spirit of cooperation which is sometimes not possible in a line organization where even minor matters have to be referred upward through several levels for final decision.

There's a definite place and function for a

SECRETARIAL POOL

JAMES G. HAWK
Business Manager
Babson Institute of Business Administration
Babson Park, Mass.

THE SUBJECT OF THE SECRETARIAL pool is, I find, one that of necessity must be strictly factual. You can give its "modus operandi" and the reasons for and against its use. That is all. It is one that lends itself neither to dynamic presentation nor to humor, yet it is one in which there is growing interest.

Secretarial pools are not in use in many colleges today but they have been operating in several large, medium and small sized colleges long enough to be beyond the trial stage. Those that do have them are truly enthusiastic.

In our office at Babson Institute we have a staff of four, consisting of a head secretary and three assistants. It is desirable, though not essential, that at least one of these operators take shorthand. Upon occasion students are used to help with the heaviest loads or with mailings. We use one electric and three manually operated typewriters. These should have elite type unless financial statements are being done, when pica type is preferable. Elite type gets more on a page, thus saving time and paper.

The work is scheduled by the head of the office who, in our case, uses a tiered rack with colored cards. We need only three colors. These colors show at a glance the amount of work to be done, in process of being done, or completed that day. Our three categories are mimeographing, duplicating and transcribing. These colored cards contain the following information:

1. Name of the professor, organization or staff member for whom the work is being done.
2. Form number, for filing purposes, when stencils are made and if a request has been made that the stencil be saved for re-runs.
3. One or two word explanation of the work, such as hour test, examination or business letter.
4. Initial of operator to whom the work has been assigned.
5. Date and time work is received in the office.
6. Date and time work must be completed.
7. Number of copies required.
8. Special instructions or remarks.

When a job is completed its card is dropped in a small compartment at the bottom of the tiered rack according to color. This work is then entered on a file card made out for each professor, department or school organizaton. At the end of each term a report is made by the head of the office showing the amount of work done for each one and the total work done for the period.

There must be close liaison between the head of the stenographic office and the administrative officer responsible for the scheduling of term examinations. As soon as the examination schedule is arranged, a deadline should be set for the filing of each examination in the secretarial office and each professor or department head so informed. A deadline also should be set for proofreading, preferably by the professor who prepared the examination. This method will avoid bad bottlenecks.

A notice should be sent out each June to professors to eliminate any stencils that they will not use the following year. If this is not done, you will soon run out of filing space.

Is a central secretarial pool desirable? First, let us consider the arguments against it.

Some colleges believe that their buildings are so far apart that there

would be loud howls of anguish if the professors were required to take or even send their work to a central office. In some colleges, especially state universities, there are many outside contacts with the public which make it necessary to have a receptionist receive visitors or to answer the phone, even though the girl may sit knitting or reading part of the time. A central office cannot fulfill the duties of a receptionist. There are those who say that they receive better service if stenographers work for only one department because they get to know the particular needs of that job more thoroughly. It is difficult to educate the professorial staff to the necessity for scheduling its needs far enough ahead so as not to jam up the office with work. This is particularly noticeable at the beginning of any term and before examinations. One business officer expressed the opinion that it is difficult to administer a secretarial pool fairly and that it is a source of possible friction among office heads which is not offset by any material savings on the expense side of the budget.

Other disadvantages to a secretarial pool are: (1) difficulty in getting certain professors to use the service; (2) difficulty in getting urgent letters quickly, if there is a delay in the messenger service; (3) additional time consumed in getting corrections made when a stenographer is not in the same office; (4) altercations as to the amount charged a departmental budget for service rendered; (5) difficulty in making decisions as to whether the work is college business or personal.

On the favorable side of the ledger are the following points: The stenographic office can help other offices during vacations, or when there are shortages of help due to sickness. It can handle large mailings that would seriously hamper the efficiency of a small office if it did not have this additional help. At times it offers the opportunity to select younger girls at a lower wage scale, to test their ability, and to promote them to important secretarial jobs. In other words, it furnishes a training school which, in many instances, will fit them for secretaries for department heads with a much shorter training and transition period. Closer supervision can be given to the work by the office head. Letters can be checked and edited and the style kept uniform. Electric typewriters can be used almost exclusively, more especially in the larger schools. It would not be practical to supply them in all offices but it would be in an office of this type. This means more work can be turned out faster. Using a dictating machine and having the material transcribed is, except in emergencies, more

satisfactory than dictating to a stenographer. In such an office full production can be achieved through proper distribution of work so that there is practically no wasted time.

It may be possible, after careful study, to understaff offices slightly, thereby effecting a saving, and to draw upon or use the secretarial office for peak loads. By so doing you increase the opportunity to get more promising girls just out of secretarial school who do not as yet have a good background of work experience. These girls, because of superior potential ability, are not willing to be confined to an office on more or less routine work unless you can promise to advance them from the pool at the first opportunity. In an office as small as ours at Babson a stenographer has sufficient variety to keep her work interesting. We promote from our office to more important secretarial posts when it is merited. If colleges do not have this pool, they may often miss the cream of the secretarial school crop because they must hire older, trained secretaries, resulting in a higher average wage scale.

To sum up the results of this investigation, I have come to the following conclusions:

Administrative officers should retain their private secretaries but there should be a definite determination as to how far down the administrative ladder this condition should apply. With increased operating expenses which cannot be offset by increased income, it is going to become more and more important for the privately endowed colleges, at least, to make every effort possible to operate their plants more efficiently. This use of a central stenographic office is a move in that direction.

Correlated with the foregoing is the need for a more effective grouping of offices, particularly in the administrative department. In some instances, it may mean the abandonment of the principle that a man because of his rank is entitled to a private secretary. It tends to promote greater activity in all departmental offices where, even though there is a secretary, there is a hesitancy to undertake some things because it would overload and handicap the regular work. To shift girls from one office to another has obvious drawbacks. In no sense should this central secretarial pool be construed to mean an office where girls are simply waiting to be called to take up slack in some other office. It should have a definite place and function in the college. The word "pool" is misleading; it might better be called the secretarial office or bureau.

Write for Volume Index

If you bind your volumes of COLLEGE AND UNIVERSITY BUSINESS you will want the index to Volume 8, covering issues from January through June 1950. You may obtain your free copy by writing to COLLEGE AND UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Illinois.

STUDENT GOVERNMENT IS BIG BUSINESS

CHARLES D. OWENS
Manager, Associated Students
University of Washington, Seattle

IF YOU STOP TO MAKE A HURRIED survey of the area of extracurricular activities of the present day, you will be amazed by the tremendous amount of money involved in this phase of student life on the many campuses across the nation.

The most significant and heart warming aspect of this expanding business that is now taking its place in the sun is the attitude of university and college administrators toward leisure time activities. During the last quarter of a century there have been almost a complete about-face and common agreement among leaders in the field of education as to the value of extracurricular activities, contrary to the general attitude of 25 years ago held by most educators that this was the side show part of college life and something to be tolerated, but not encouraged.

At the University of Washington, the Associated Students' structure encompasses a financial operation with an annual operating budget of more than $2,000,000. This has been brought about by a determined body of students with a firm conviction that they were capable of administering their area of student life, plus the genuine interest of the university administration in granting an endless amount of autonomy to the student body as students proved by showing responsible leadership that they were capable of assuming these responsibilities.

Realizing the need for continuity in an enterprise of such scope, the Associated Students' board of control set up an administrative structure and employed competent personnel to direct the operation of its various enterprises. It has an athletic director who is responsible for the area of intercollegiate activities and a manager of activities who directs the operation of the yearbook and the humor magazine.

This vast empire operates under a student board of control composed of 23 members, eight of whom are students elected annually by the student body at a general student election, and 10 who are elected from representative student organizations. The other five are faculty members, appointed by the president of the university upon recommendation by the board of control. The two administrative officials of the Associated Students serve as ex officio members of this board, without vote.

PREPARE ANNUAL BUDGETS

The finances for this operation are handled by a finance and budget committee, composed of four faculty and three student members, plus the director of athletics, the manager of activities, and the controller of the university. The latter three serve as ex officio members without vote. Each of the two administrative officials prepares an annual budget for his respective operation and presents this budget to the finance and budget committee, which, in turn, approves and presents the annual budget for operations to the board of control for final approval. Expenditures and budgets must have the approval of both the board of control and the finance and budget committee.

An activity fee for all students is set by the board of regents and collected by the university for the Associated Students along with the regular registration fee of the university. This money is then transferred to the Associated Students to be used to augment its own revenue produced from athletic events, publications, dances, concerts and the various multitude of other activities sponsored by it. The finance and budget committee makes an arbitrary division of this activity fee on an annual basis to the areas of athletic and nonathletic activities. This allocation is determined by the need of the two areas. Operating surpluses and revenue from both areas go into a surplus account that is disbursed only under the authorization of the finance and budget committee and the board of control.

During the last 40 years, the Associated Students has built an athletic pavilion and a stadium at a cost in excess of $2,000,000. It recently has completed the first two units of a new student union building at a cost of $1,300,000, and is presently working on plans to expand its stadium by 15,000 seats and add two units on the student union building at an estimated cost of $3,000,000. This expansion will be made possible by the regents' granting it $500,000 for assistance in expanding the student union building, and the balance of $2,500,000 will be borrowed through a bond issue to be amortized over a 20 year period.

In order to make this possible, the student board of control voted last year to increase student fees permitting the regents to impound a fee of $10.50 per student per year to amortize this loan. To lend a helping hand toward the construction of the student union building, the board of regents has assured the Associated Students that it would match student funds dollar for dollar in this project. Half of the cost of the first two units of this building has already been made available.

The organization of student government on the campus should be an all-encompassing structure and truly represent the students of the university.

As we watch the students conduct their annual elections with the use of automatic polling machines borrowed from the city, we cannot help but be reassured of the future of our country. This is a veritable proving ground for future statesmen and a firsthand example of youth's demonstration of our most prized and cherished possession, "Democracy at Work."

How M.I.T. meets state laws and handles

LARGE GROUP SEATING

CARL M. F. PETERSON
Superintendent of Buildings and Power

and

HERBERT L. BECKWITH
Professor of Architecture
Massachusetts Institute of Technology

IN THE SPRING OF LAST YEAR THE Massachusetts Institute of Technology inducted Dr. James R. Killian Jr. as its 10th president, simultaneously playing host at a "Mid-Century Convocation" to scientists and scholars from many parts of the world.

When it was decided that several of the general assemblies and panel discussions would be held in our Rockwell Cage, a seating problem of major proportions was thrust upon us. Rockwell Cage is a building approximately 200 feet long by 160 feet wide. It was designed primarily for athletic events and has a dirt floor. For the ceremonies, a stage seating 500 was set up across one end of the building; in the northeast corner was a wooden bandstand for 55 musicians, and plans had to be made for 4400 seated guests.

Massachusetts, particularly since Boston's Cocoanut Grove disaster, has had stringent regulations in regard to securing portable seating in aisles and rows. The chairs must be fixed in place so that large groups moving in or out cannot push them out of alignment.

A further complication was the fact that some of the floor chairs had to be set at an angle to face the stage, but the dirt floor was the major problem.

The solution was furnished by a Boston public seating specialist, who assumed complete charge of the seating arrangements. This was, we believe, the first time that a system of fastening steel folding chairs was used on such a large scale, and it proved adaptable to many varied conditions.

For the floor, steel folding chairs of the "X" type were set in position. In one section of the cage, for example, banks of 429 chairs were used together —13 chairs to a row, 33 rows. The outside legs of the chairs on both aisles were placed in the grooves of threshold strips; the strips themselves were linked together by a simple tongue and mortise connection. When the chairs had been arranged in rows 32 inches apart, 1 inch steel tubes, joined by connectors to make the proper row length, were thrust through the top part of the X's formed by the legs of the folding chairs. At the ends of each row, fasteners incorporating a turnbuckle were used. At the top, the fastener went over the steel tube; at the bottom it hooked into a hole in the tongues protruding from the threshold strips. A few turns of the turnbuckles at each end anchored the chairs to the threshold strips and made firm rows of 13 chairs that would not be pushed out of alignment by the movement of the people.

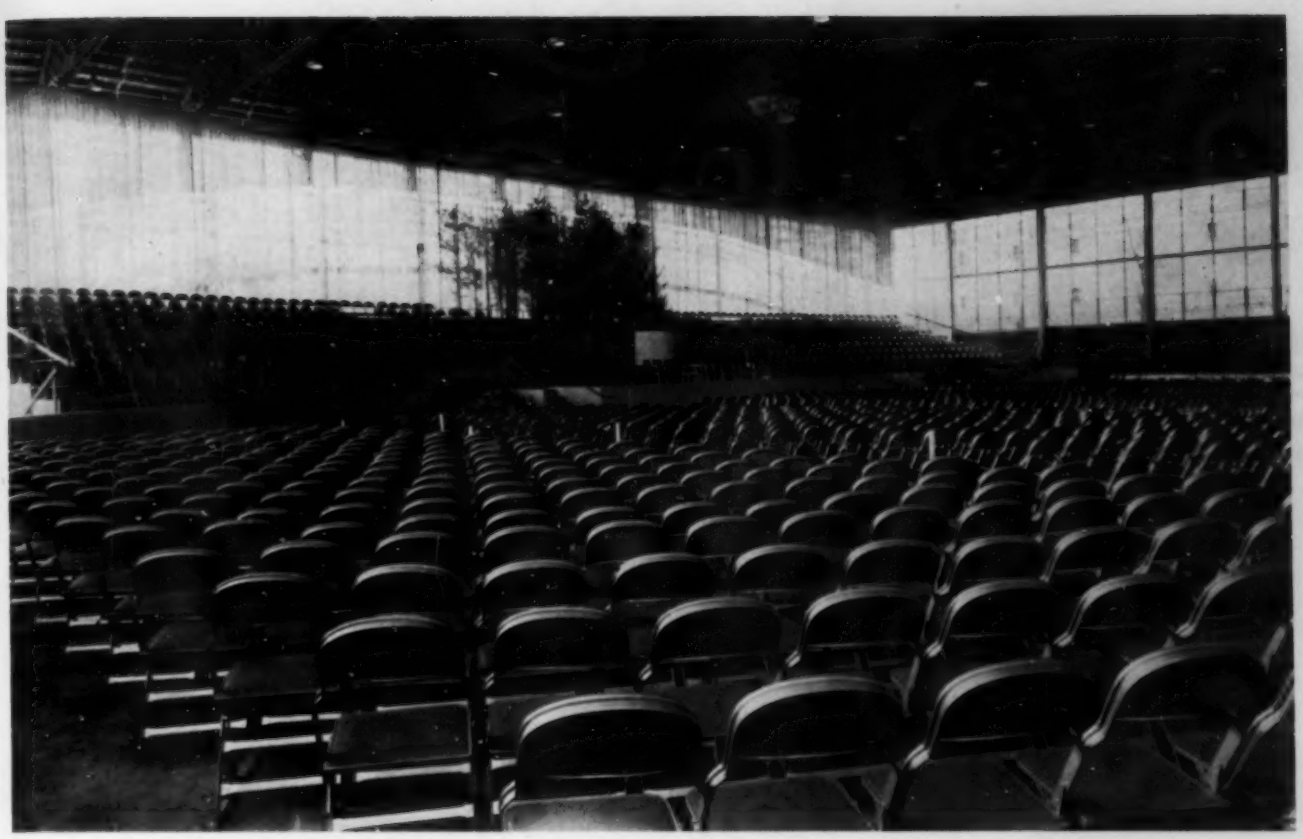
A small bank of chairs secured by the new locking system. Note the tubes running under the chair seats and anchored to the threshold strips below.

The adaptability of the new system was further demonstrated when it came to setting the chairs in place just below the stage and parallel to it. These were, of course, at an angle to the rows of chairs behind, and the arrangement demanded one row of 13 chairs, the next of 10, and then rows of 7, 5, 3 and 2 chairs each, to conform to the angle of the speaker's platform. This was easily handled by using the requisite number of threshold strips and connecting tubes of varying lengths as the length of the rows diminished.

Since a flute player's seating requirements are not those of a bass drum player, the 55 seats on the bandstand for the musicians had to be handled individually. Screw eyes were turned into the wooden platform at the side of each chair, the steel tubing was passed through the legs of each chair, and a fastener with turnbuckle was used at each side to secure the tube to the screw eyes.

Installation of the 4400 folding chairs for the convocation required approximately 120 man-hours and about 92 man-hours were needed to break down the equipment and store it. Both operations were greatly facilitated by use of specially designed hand trucks which enable a man to pick up, carry and deposit 12 steel auditorium chairs folding to two inches each.

The steel folding chairs and the new locking equipment which M.I.T. now owns enable us to handle seating arrangements for groups of various sizes, using many different types of meeting rooms. A minimum of storage space is required, and the equipment can be moved from place to place quickly. We find it an economical and efficient system of large group seating in conformance with our state and municipal regulations.



The Rockwell Cage at Massachusetts Institute of Technology with 4400 steel folding chairs anchored in rows on the dirt floor by the new locking system at last year's convocation.

Setting up the chairs. The worker at the right is bringing up a load of chairs, while the one at the left is placing the steel tubing that will hold them in rows and keep them aligned.

Windowless classrooms in new building for SOCIAL SCIENCE

WINSTON A. CLOSE
Assistant Advisory Architect
School of Architecture
University of Minnesota

A NEW BUILDING FOR THE SOCIAL sciences at the University of Minnesota exemplifies several of the problems that confront the architect when he adds a new unit to an established and highly formalized group plan.

This building will be called Ford Hall in honor of Guy Stanton Ford, former dean of the graduate school and, for three years before his retirement, president of the university. The building will be located at the northeast corner of the lower mall. To the north, about the upper mall, are located the major classroom buildings, of Renaissance design. These are dominated at a still higher elevation by the imposing colonnade of Northrop Memorial Auditorium. Opposite Northrop, at the south end of the lower mall, is Coffman Memorial Union, center of students' recreational activities. The union is of contemporary design.

Ford Hall will house the departments of history, geography, anthropology, political science, and sociology. It will provide the major portion of the classroom facilities needed for these departments, as well as offices for more than 150 faculty and clerical personnel. The number and approximate capacity of general classrooms will be: 12 for 30; eight for 100, and two for 190.

A departure from the Renaissance design of the upper mall buildings was indicated for the new building for several reasons. The space requirements of the building were such as to necessitate five fully usable floors. A stone entablature like that used on the older buildings would have made natural lighting of the top floor of offices all but impossible. A different fenestration system was desirable in order to accommodate the many small offices and flexible division of space which the program called for. The type of exterior design adopted accomplishes these objectives, and establishes a transition from the traditional older mall buildings to the more contemporary Coffman Union.

SEMINAR ROOMS FLEXIBLE

The plans provide for a ground floor and first floor of classrooms, with an off-center corridor to allow additional width for the largest classrooms. The upper three floors consist of departmental offices extending around the entire periphery of the building in a 15 foot wide strip. This leaves an interior space for flexibly divided seminar rooms immediately accessible from the office corridors.

The grade entrance, stone portico, and simple window openings of the proposed building recall a similar treatment of the Coffman Union, but harmonize in mass and scale with the older buildings of the upper mall.

The building will be of concrete skeleton construction with curtain walls of local red brick and Indiana limestone trim, to match the other buildings of the mall. Windows will be wood, double-hung, with dark aluminum spandrels to emphasize the vertical pier treatment of the long sides of the building. Interior partitions will be plaster over clay tile. The stairways will be pressed steel with terrazzo filled treads.

Folding partitions will be used throughout the seminar areas and in some of the classrooms and offices to allow ready adjustment of room sizes.

Asphalt tile is contemplated for floors and acoustical tile for ceilings. Neutral colors will be used for flooring, hardware and furnishings. Blackboard walls will be painted in dark colors to minimize contrasts. The

other classroom and office walls will be painted in light colors, grays and blues predominantly for the south rooms, grays and yellows for the north rooms. Ceilings throughout will be white.

The building will be heated by convector type steam radiators served from the central heating plant. Vertical risers will be exposed.

The large classroom on the first floor and all the classrooms on the ground floor will be windowless. This is being done to facilitate the use of visual aids. The darkening of the typical classroom cuts out natural ventilation and produces discomfort and distraction. All the windowless rooms, including the seminar spaces, will be ventilated at all hours when the building is occupied. It is believed that the effectiveness of visual aids will be greatly increased by this measure.

As to the cost of such windowless space, the installation and operation of the ventilating system must be offset against the cost and maintenance of operating windows with lightproof blinds. Ordinarily, the overhead lights are on while the rooms are in use, even when the room has the normal quota of windows.

The content of the building is 959,166 cubic feet. The following is a tabulation of costs, based on bids received August 11, 1949.

The ground floor and first floor are used for classrooms. The third, fourth and fifth floors consist of a strip of well lighted offices around the entire building, with an interior seminar area immediately accessible from the office corridor.

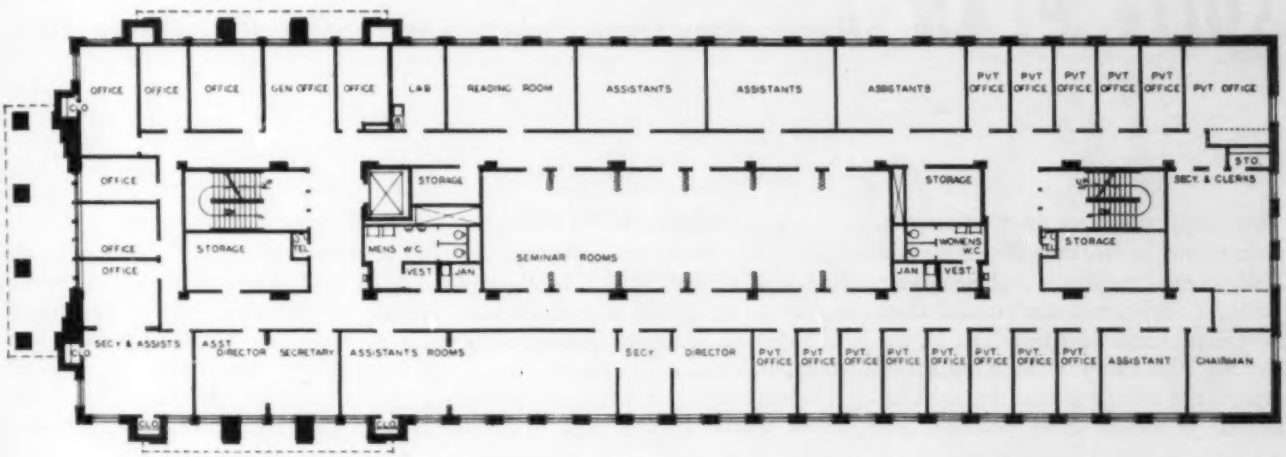
Base Bids

	Cost	*Per cu. ft.*	
General	$638,500	$0.67	
Mechanical	85,600	0.09	
Electrical work	58,635	0.06	
Elevators	19,987	0.02	$0.84

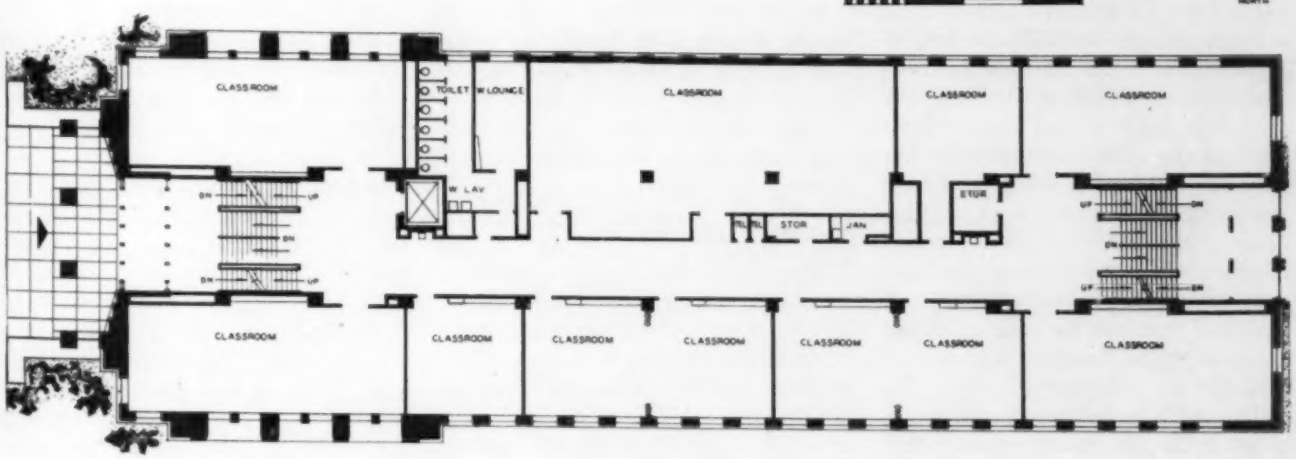
Other Estimated Costs

Architects' fees	$ 40,136	$0.04	
Supervision	6,000	0.006	
Testing services	1,500	0.002	
Storm sewer	60,000	0.062	
Furniture	111,000	0.11	
Contingencies	25,000	0.03	
Landscaping	5,000	0.005	$0.26
Total	$1,051,358		$1.10

Provisions have been made for a second elevator, which, if installed at this time, would increase the over-all cost to $1,071,358, and the total cubic foot cost to $1.12.



THIRD FLOOR PLAN



FIRST FLOOR PLAN

SUITE PLAN *affords easy transition from family to college life*

MARJORIE MITCHELL
Former President
Cottey Junior College

THE UNIQUE ARRANGEMENT OF STUdent rooms in Winona Evans Reeves Hall, a new residence hall at Cottey Junior College, was determined after long experience with this plan on the Nevada, Mo., campus. Such a housing design, the college authorities are convinced, promotes daily, practical experiences in group living which are of essential value in Cottey's program of general education.

The experiment with a suite plan began more than 50 years ago when the college was privately owned by Virginia Alice Cottey. In order to create a family life for her students, who included girls of all ages, Miss Cottey divided her large group into small divisions and made a staff member who lived in the suite responsible for the girls housed therein. When the college was reorganized in 1929 with only students of junior college rank, the staff member was removed from residence with the group, but the residence halls were still arranged for such units and group living had become an important habit on the campus.

The college came into the ownership of the P.E.O. Sisterhood, a nondenominational society of women, who, when they erected a residence hall in 1938, carefully considered and thoroughly discussed continuation of the suite plan. Ten young women live together in each unit, sharing a common living room, bath and utility room.

When construction of Winona Evans Reeves Hall was being considered in 1947, there was never any question of the desirability of continuing the suite plan. The popularity of suite life with students; the close association it promotes among numbers of girls in a school with a widely spread clientele; the easy transition it affords to young women from family to institutional life, and, above all, the laboratory it provides for training in social adjustments made any extra cost arising from such an arrangement a well justified educational expense.

BUILDING HAS 10 SUITES

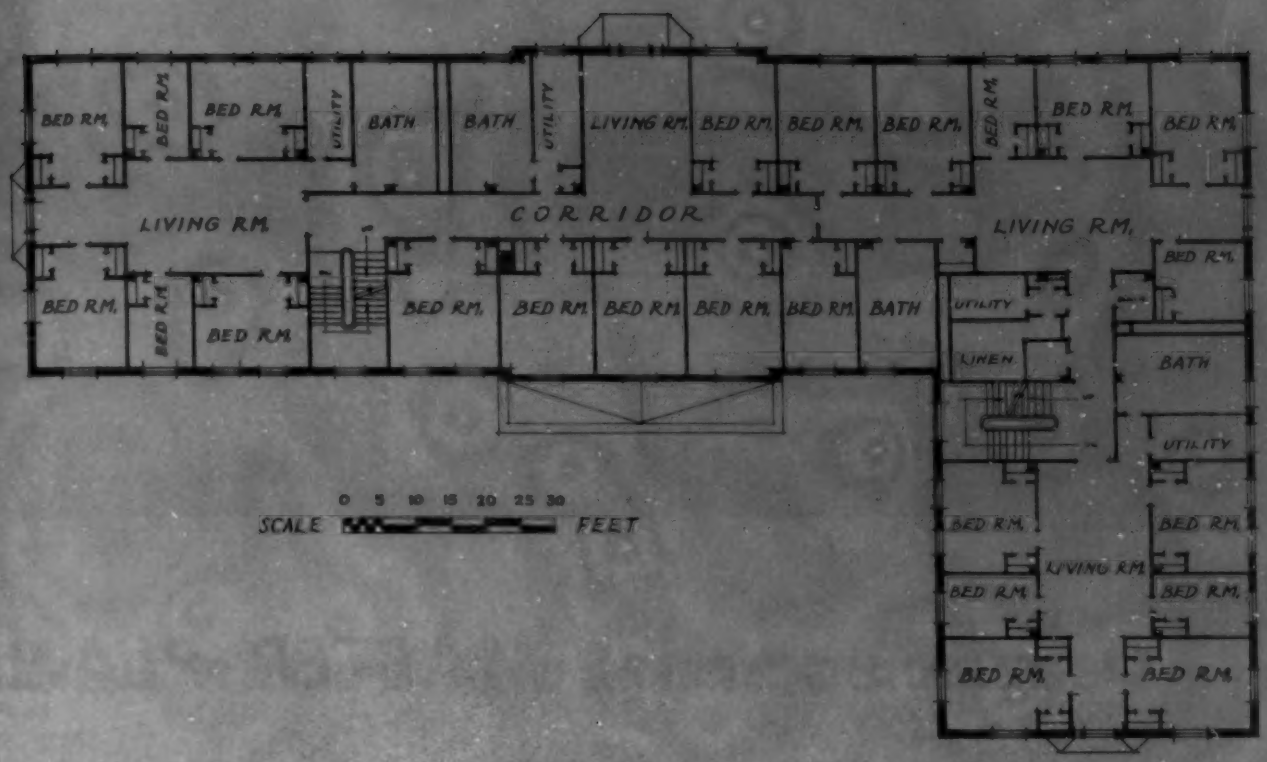
The total outlay for Reeves Hall was $439,217, making a per capita cost of $4392 for each of the hundred students housed. The building contains approximately 500,000 cubic feet, costing $0.87½ per cubic foot. It contains 10 suites and several general social rooms, in addition to rooms for the staff members who supervise the building.

The financing of the building is interesting. During the years when no construction could be undertaken, a building fund was accumulated from the annual subsidy of the college by the Sisterhood. The remaining sum necessary will be paid through the allocation of 25 per cent of a dollar a year contribution from each of 100,000 members of the Sisterhood. There will be no special assessments but there have been some special gifts.

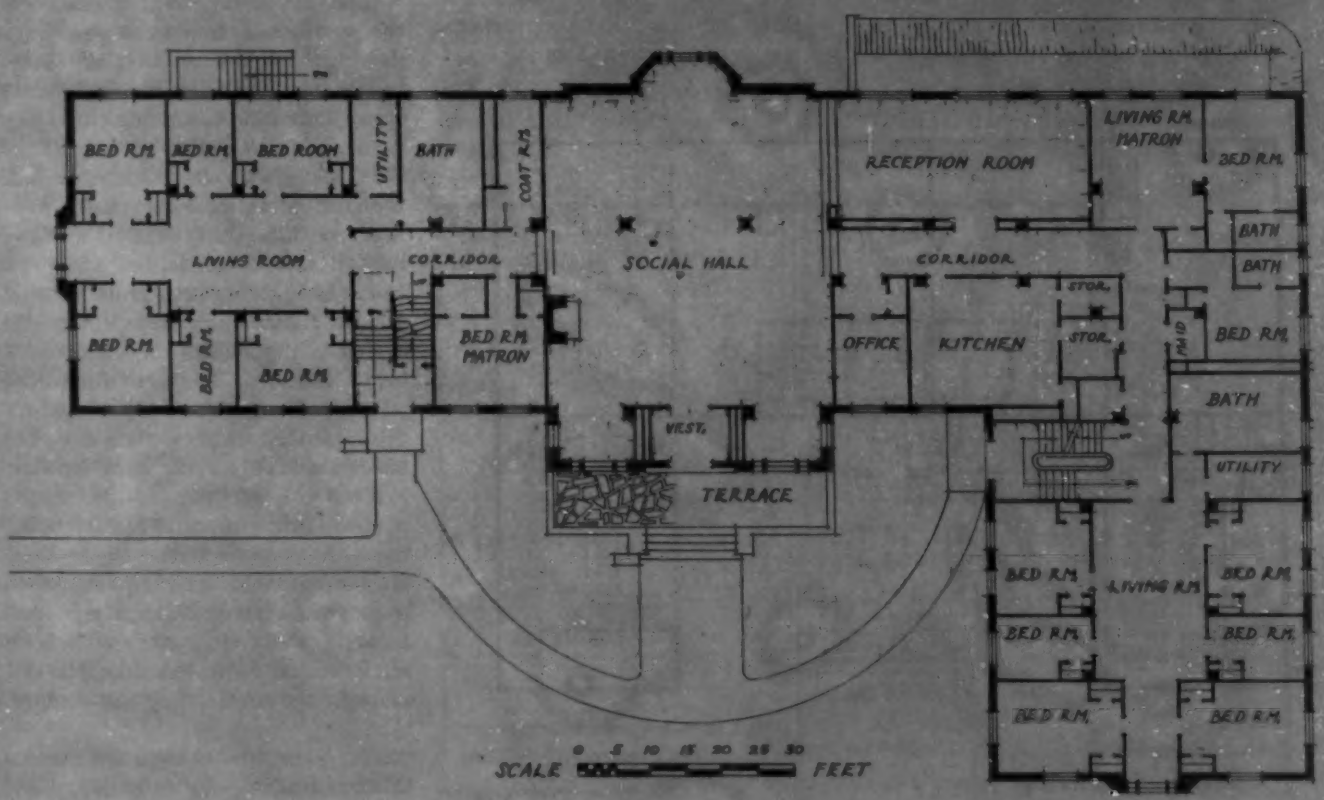
The residence hall and new heating plant have materialized mainly from donations of 25 cents a year only from thousands of women! It is estimated that the costs of both buildings will be paid in this way in about 10 years.

In the case of Cottey Junior College, the division into suites facilitated furnishing of the building. Since many P.E.O. groups, especially state chapters, adopt some individual "project" at the college as their philanthropy, the suites were well suited to their desires. A state chapter takes great pride in its suite and often becomes much interested in the students who live therein.

The furniture is not selected by the donors, but by a committee at the college. Such an arrangement ensures uniformity and economy of upkeep. The bedroom furniture is the same throughout the entire building, but the decoration differs in each of the living rooms. There is some general relationship between the type of furniture and the locality of the state group.



Floor plans of Winona Evans Reeves Hall, Cottey Junior College's newest residence hall, where 100 young women live, 10 in each unit sharing a common living room, bath and utility room. Below: First Floor. Above: Second Floor. The third floor is similar to the second.



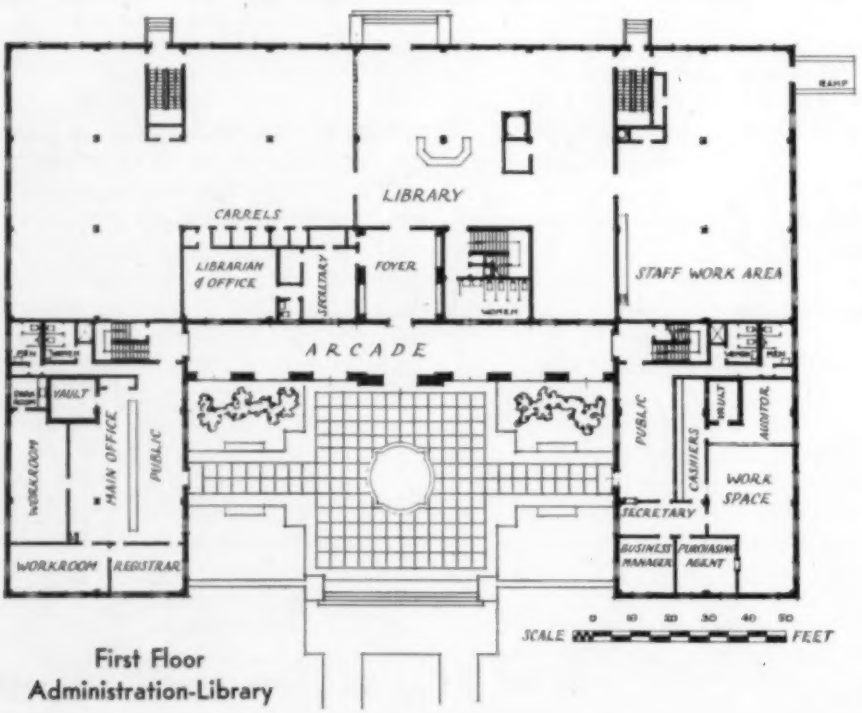
ADMINISTRATION-LIBRARY BUILDING

Texas A. & I. follows MASTER PLAN:

THEODORE J. YOUNG
Eggers & Higgins
Consulting Architects

FOLLOWING THE PATTERN OF A MASTER plan adopted in 1943, the Texas College of Arts and Industries is now launched upon two units in a unique postwar expansion program. Together, the two construction projects will justify the vision of college authorities who recognized the advantages of a long-range program designed to integrate college facilities as efficiently and economically as possible.

Memorial Union, a three-story building for student extracurricular activities, is already under construction. Working drawings are being prepared for the Administration-Library Building which will occupy a dominant site in the heart of the campus.



First Floor
Administration-Library

A relatively small college, Texas A. & I. is located in Kingsville, which derives its name from the near-by million-acre King Ranch. The college stresses the study of animal husbandry. Although perhaps best known for its cattle ranges, the area also abounds in natural gas, hence another branch of the curriculum emphasizes gas engineering. A third and equally interesting facet of the college courses springs from the expanding citrus fruit industry in that section of Texas. Thus, the college, which provides a well rounded educational program, draws together three apparently unrelated special subjects: animal husbandry, gas engineering, and citrus fruit farming.

First construction steps under the master plan provided the basic educational facilities. The next immediate step rounds out related needs, and the third, planned for the future, envisions residence halls for men and women.

Since the adoption of the master plan, the Administration-Library Building has been viewed consistently as the key edifice of the campus. Its bell tower will therefore accent the focal point of the college and be a landmark visible for a considerable distance in the surrounding flat countryside.

The plan of the Administration-Library Building is essentially "H"

MEMORIAL UNION

ADMINISTRATION AND UNION BUILDINGS

shaped, with the open sides of the long, main section facing north and south. The architectural style, conforming to existent buildings on the campus, is simple Spanish Colonial. The exterior materials, light buff brick with limestone trim, are the same as those of other buildings. The bell tower surmounts a typical Spanish tile roof.

The central door in the arcade across the main façade of the building leads to the library. Doors at each end of the "H" open to wings devoted to administrative operations.

Following the principles of modern library planning, the library main floor is devoted to reserve books and a staff working area. This is not to be confused with the traditional bookstacks set aside in separate, special areas, for reading spaces are provided on this floor as well as on the floor above, where the main reading room is located.

Adjacent to the main library room, which measures 160 by 65 feet, are the offices of the secretary and librarians. A large space also is set aside for cataloging, book repairs, and other library staff work. The control desk is opposite the main entrance where it can serve all traffic from the main staircase and the main entrance doors.

The main reading room and catalog space on the second floor conforms

PHELPS AND DEWEES AND SIMMONS

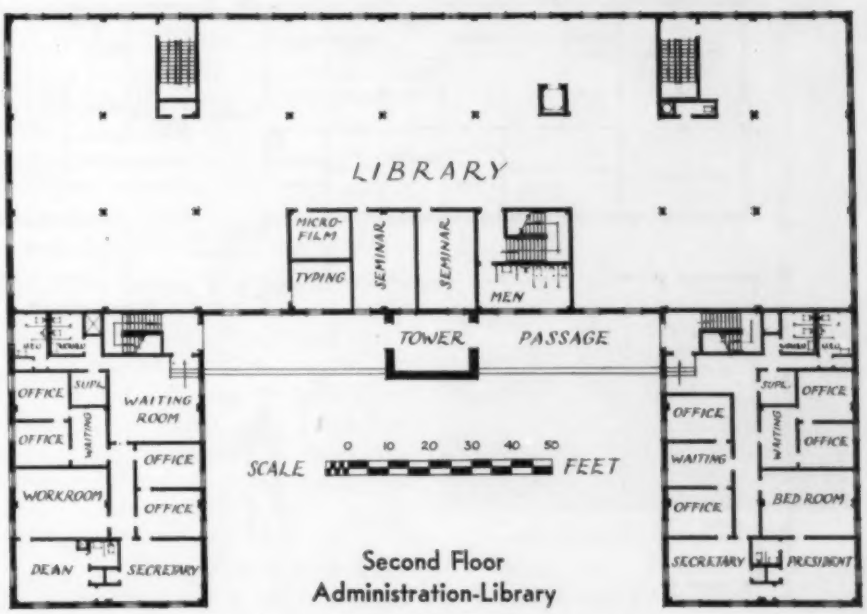
Architects

to the modern principle that more effective and efficient use of books can be obtained by placement of the books directly in the reading areas. Proximity of the books to the readers makes for more efficient use of space and staff. The floor structure is designed to carry stacks wherever they are desired. Additional space is set aside for two seminar rooms, a microfilm and a typing room, and wash rooms.

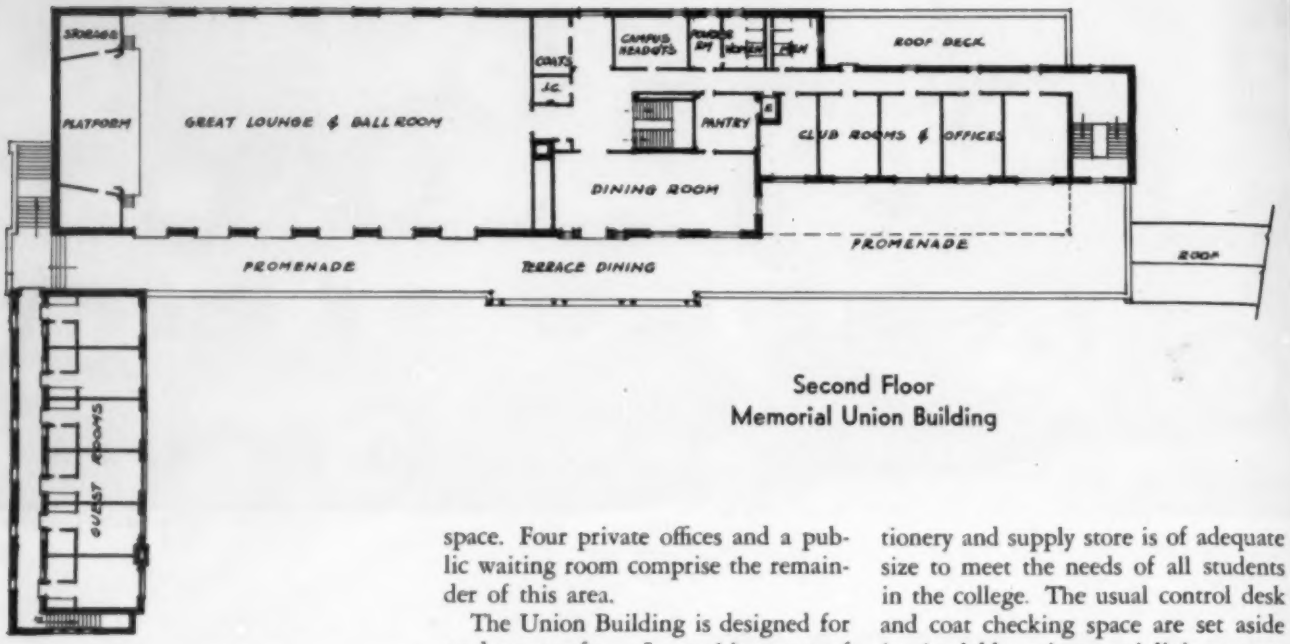
The wings are designed to permit ready expansion in the future, at both ends, to the north.

Although under the same roof, the administrative wings are completely independent of the library, having their own entrances, stairs and circulation.

The first floor of the west wing is set aside for the cashier and cashier's counter, the secretary's office, and the offices of the business manager, pur-



Second Floor
Administration-Library



Second Floor
Memorial Union Building

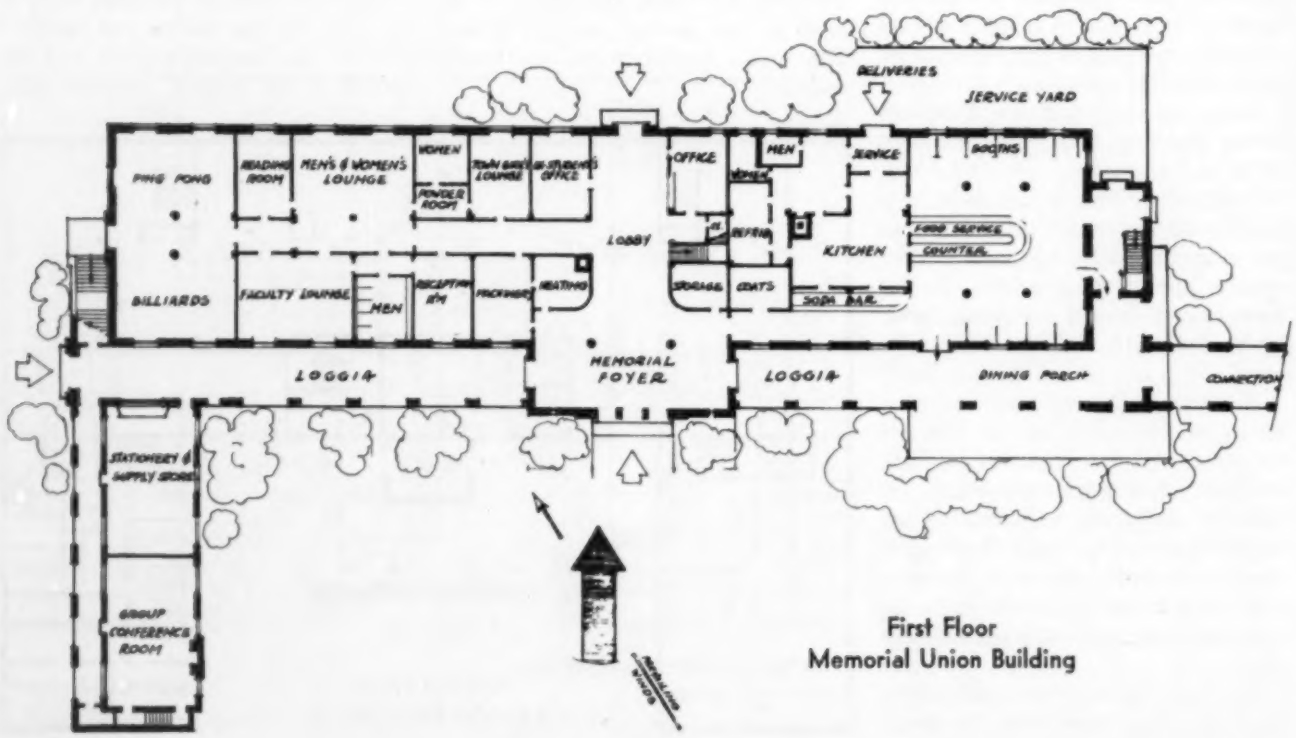
chasing agent, and auditor. Clerical work space also is provided. The president's office is on the second floor. The area includes space for the president's secretary, a waiting room, and private offices for other uses.

The registrar's suite occupies the first floor of the east wing. Adequate space is provided for a public area, counters and a main office. In addition to the registrar's private office, space is set aside for two large clerical workrooms. On the second floor is the suite of the dean of the college, which consists of a private office, a secretary's office, and clerical work space. Four private offices and a public waiting room comprise the remainder of this area.

The Union Building is designed for student comfort. Its architecture, of Spanish Mission derivation, is in harmony with other structures on the campus, with exterior of buff colored bricks with limestone trim and red tile roofing.

A three-story structure measuring 250 by 53 feet, the Union Building is large enough to encompass on the first floor, in addition to a diversity of facilities, a common room with soda fountain, kitchen and food service counter to accommodate 100 persons. Space on the first floor is also set aside for student and faculty lounges, a reception and reading room, and billiard and ping-pong rooms. A stationery and supply store is of adequate size to meet the needs of all students in the college. The usual control desk and coat checking space are set aside in the lobby. A guests' living room, associated with sleeping quarters on the floor above, also is planned for the first floor.

The grand lounge and ballroom, running through the second and third stories, measures 100 by 50 feet. Six guest bedrooms also are located on the second floor. Other facilities on this floor include a dining room, a serving pantry, office and club rooms, with a promenade deck and dining terrace in front. Most of the third floor is occupied by the ballroom, with a balcony that will accommodate 150 persons. Additional space is set aside for offices and club rooms.



First Floor
Memorial Union Building

Iowa State College pioneers in

TELEVISION

RICHARD B. HULL
Director, Station WOI
Iowa State College

THE FIRST STANDARD TELEVISION broadcast station to be operated by any college, university or educational agency in the United States is WOI-TV, owned and operated by the Iowa State College of Agriculture and Mechanic Arts at Ames.

WOI-TV is licensed to transmit on channel 4 with a radiated power of 13,000 watts. The station is operated from an antenna elevation 1610 feet above sea level with broadcasts scheduled from 7:00 to 10:00 each evening and special transmissions on Sundays.

Serving an area 60 miles in radius, WOI-TV reaches a potential audience of 500,000 people located in the richest and most heavily populated area of the Hawkeye state. Not only are residents of six major Iowa cities in the primary coverage area of the new television station, but there are scores of small cities and towns, and hundreds of Iowa farms.

This pioneering experiment, anxiously watched by the U.S. Office of Education, the U.S. Department of Agriculture, some 30 colleges and universities which are studying television, and many other state and federal agencies, is dedicated to education and designed to function in three major areas: (1) off-campus extension education for adults and secondary schools; (2) a communications training center for students in the areas of television program and production and engineering, and (3) a television research center which will study TV audience impact and search out technics for education through this new visual broadcast medium.

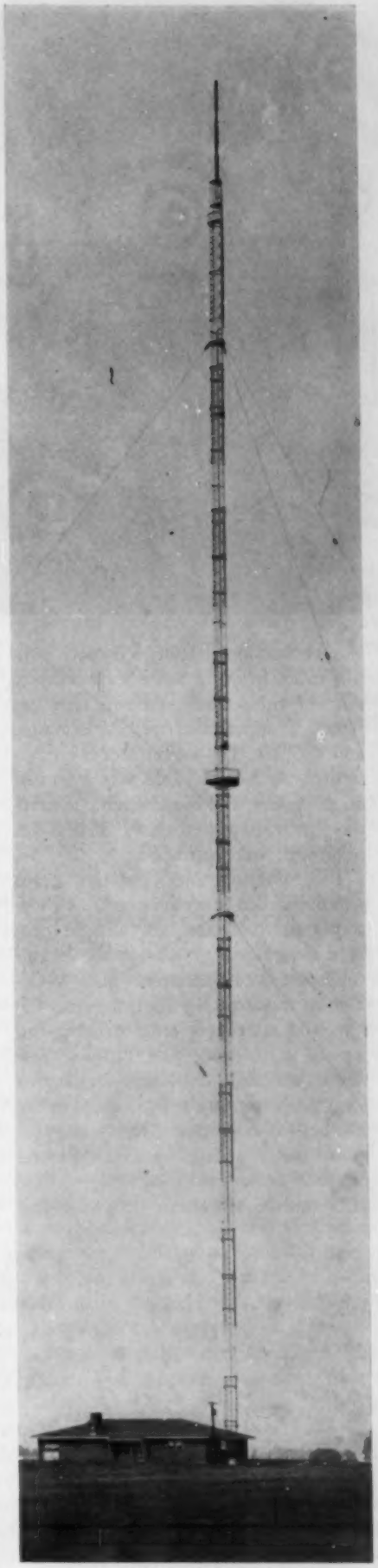
No sudden development, the television project was under study since 1945. In that year Dr. Charles E. Friley, president of Iowa State, mindful of the major rôle which the college AM station, WOI, had played in the off-campus educational program, and conscious of the impending technological revolution in communications, appointed a committee to appraise the future rôles of FM and television broadcasting with respect to the institution.

As a result of that study, the college applied for and was granted permission by the Federal Communications Commission to construct and operate a new FM and a new television broadcast station. Thus, Iowa State became the first educational institution in the country with permission to construct its own television facilities, and the only college or university presently equipped to transmit simultaneously or separately with all three of the modern broadcast media through its three stations, WOI (AM), WOI-FM, and WOI-TV.

Economy dictated a unique engineering design split into three successive stages—FM construction, TV construction, and AM modernization. Not only were new facilities required for the FM and TV stations, but long-term college building plans and new regulations by the Civil Aeronautics Authority called for a change in the WOI (AM) tower location.

Final plans specified a building large enough to house the AM, FM and TV transmitters, an independent diesel power source, workshop and a single supported tower 585 feet in height. The single tower was designed not only to serve as the supporting structure for the FM antenna and the TV antenna, but ultimately to replace the present WOI (AM) tower, thus providing accommodations for three separate transmissions over a single antenna structure and from a single building.

A 40 by 75 foot ranch style transmitter building with a 585 foot tower



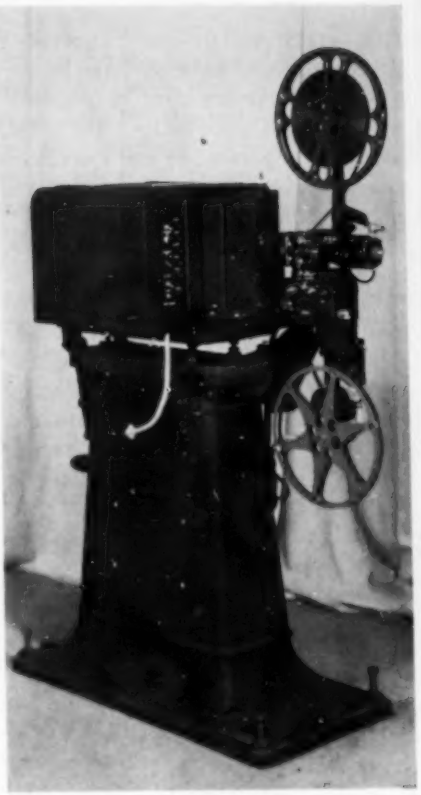
Completed 585 foot antenna being used at Iowa State for FM and TV transmission.

Left: Scene in the new transmitter house showing view of control panel. This is the newest addition to the WOI physical plant.

was erected on a college owned farm 3½ miles from the Iowa State campus. An FM transmitter and ring-type antenna, a super-turnstile TV antenna, and a 5 kw TV transmitter were installed. A coaxial cable was mounted on the tower, and diesel engine generators, providing a total of 150 KVA of power, were installed.

Programming and operation plans stipulated for development in three stages to minimize cost and to provide maximum service for the beginning period of operation. Thus WOI-TV is transmitting all programs on film and slide projectors making full use of a 16 mm. film camera crew and rapid film developer devices for local programming and postponing the live or studio produced television program until a later period. Second phase of development will be purchase of a mobile television unit and live TV field camera which can be used for remote sports broadcasts, the televising of special farm field demonstrations, campus meetings, laboratory activities, classrooms and so forth. The third and last phase, not presently scheduled and several years in the future, would be construction of television studios.

Programming will be directed to the general public and to the secondary schools providing, in the one case, direct methods of adult instruction and cultural entertainment and, in the other, a means of vastly enriching and supplementing normal classroom activity. Various agencies, such as the United Nations, the British Information Service, the National Military Establishment, and many other medical, educational and civic groups, are cooperating with WOI-TV in providing special film.



Above: This 16 mm. projector has been installed for television use at station WOI.

Right: An exterior view of the ranch style transmitter house located 3½ miles from the Iowa State campus, showing base of 585 foot antenna.

TAX LEGISLATION BY ADMINISTRATIVE FIAT

Part II

T. E. BLACKWELL
Treasurer, Washington University
St. Louis

THIS ARTICLE IS A SEQUEL TO THE one published last month under the same title, and it is also intended as a footnote to an article in this series published in the January 1950 issue, entitled "Taxation of Fellowships." Last month your attention was directed to the problems involved in the rapid expansion and development of what is termed "administrative law," especially in the field of taxation. The fact that it is possible for an administrative official, by edict, to change and repeal rules of law sanctioned by long lines of judicial precedent has been branded by Gordon Hewett, Lord Chief Justice of England from 1922 to 1940, as "the new despotism."

Students of the subject, however, probably would agree that there is another side to the picture of administrative despotism painted by Lord Hewitt; that it is impossible, in this modern age, for parliaments and other legislative bodies to enact all the laws required for our complex civilization; that the legislative and judicial processes, surrounded as they are by the time-consuming safeguards of public hearings and debate, cannot keep pace with the apparent need for more and more restrictions upon our freedom of action. Nevertheless, many probably also would agree that the problem is still an open one and that some middle ground of compromise must be found.

In the article published in January of this year, we reported on an informal ruling of the Bureau of Internal Revenue dated November 1, 1949, on the subject of taxation of post-doctoral fellowships. Prior to the date of this ruling, a fellowship stipend had been tax exempt if the holder thereof rendered no service of value to the institution granting the fellowship or to the donor of the fund from which the award was made, and if his research project would be "of benefit to the general public" and "in furtherance of his educational advancement."

NOT CONSIDERED A GIFT

Now, under the new ruling, it became necessary for the holder to be a candidate for an academic degree. If the holder of the fellowship already had received his doctoral degree, he had, in the opinion of the commissioner, "completed his general education" and it was, therefore, impossible, strange as it may seem, for the university to make him a gift. What would have been a gift to a master of science became, by some legal alchemy, taxable income to a doctor of philosophy. In these days of specialization, a real scholar has just begun his education with the receipt of his doctor's degree, and it is vital to the growth of our civilization that he continue to receive the support of fellowship funds with which to complete his education.

BLOW TO RESEARCH

Taxation of post-doctoral fellowships will deal a heavy blow to pure research in this country. The tax revenue to be derived by this change in the law would seem to be far too small to be of significance, whereas the discouragement of scholarship will levy a heavy toll on national progress.

Shortly after the issuance of this regulation, the commissioner ruled that a fellowship stipend awarded a student of fine arts, candidate for a degree, for study in Europe was not a gift, but taxable income, merely on the grounds that study abroad was not required for graduation. It apparently was useless to explain to the commissioner that, although foreign travel traditionally had been recognized as a most valuable form of preparation for a career in the fine arts, it could not, with fairness, be demanded of all students as a formal requirement for graduation.

The next blow to graduate study came shortly thereafter. For many years, a number of the leading business corporations have made available funds for graduate fellowships to be awarded by the colleges and universities of this country to outstanding young men and women. The donor of the fellowship neither receives nor expects any special benefit from the research work done by the holders of these fellowships. The holder is free to select his own subject for research and he is free to publish the results of his work.

Despite the high level of these fellowship awards, the commissioner apparently was unable to differentiate between them and the type of applied research done under contractual arrangements, wherein the commercial sponsor specifies the field of research and receives full patent protection.

From the evidence at hand, the commissioner does not believe that it is possible for a business corporation to endow or support a real fellowship for the advancement of scholarship.

RULE AWARD IS TAXABLE

In 1928 Erskin M. Ross, a retired federal judge, bequeathed the sum of $100,000 to the American Bar Association to endow an annual prize award "for the best discussion of a subject to be by it suggested for discussion at its preceding annual meeting." By some irony of fate, the topic selected for discussion for the year 1939 was "To What Extent Should Decisions of Administrative Tribunals Be Reviewable by the Courts?" Malcolm McDermott, a professor of law at Duke University, received the $3000 award. In the tax court, it was held that the award was not a gift but payment for service rendered and hence taxable. The District Court of Appeals[1] disposed of this legal sophistry with the following straightforward comment:

"No one not talking law would be likely to say that the association paid the petitioner $3000 for writing an essay or that it paid $3000 for the essay which the petitioner wrote. In plain English, the association gave the

[1] McDermott *v.* Commissioner of Internal Revenue, 150 F2 585 (1945).

petitioner the prize. . . . It is safe to say that the dominant motive of a normal contestant for this prize is not a hope of immediate financial gain. He does not regard himself as exchanging his services or his product for money. To one whose life is devoted to scholarship . . . the publication of an outstanding essay is its own reward. . . . Finally, requiring winners of scholarly awards to pay taxes on them would conflict with the wise and settled policy of encouraging scholarly work."

In July 1949 the Bureau of Internal Revenue served notice by a published ruling[2] that it disagreed with the McDermott case and that it would treat as taxable income the Ross essay prizes for 1949 and future years. It may come as a surprise, and perhaps as a shock, that a government official has the power, if not the right, by a pronouncement, to overrule the decision of a federal court. Note that this is not merely a disagreement as to the law as applied to a different set of facts, this is a flat reversal on the identical issue decided by the federal court.

The 1949 Ross essay prize went to Ernest Wilkerson of Casper, Wyo. If Mr. Wilkerson has the funds and the fortitude to challenge this administrative ruling and carry his case all the way through the tax court, the federal district court and, if necessary, to the United States Supreme Court, he may be able to receive the protection that should have been his by virtue of the decision in the McDermott case.

The burden is too great to be carried by the individuals concerned. The problem would seem to call for some concerted action on the part of the institutions of higher education in this country. I suggested the formation of a committee under the auspices of the American Council on Education. The council indicated its willingness to serve, but the deputy commissioner of internal revenue stated, in a letter dated March 13, 1950:

"Since the tax status of a fellowship award can only be determined by the application of the law to the particular facts, it is not feasible to formulate any general definition of the term 'fellowship' which would be applicable to all cases. Accordingly, it is not believed that any useful purpose could be served by a conference with a committee of educators for this purpose."

These comments by the deputy commissioner frame the issues of the case against administrative control rather completely. In a court of law, questions of fact are left to a jury; the application of the law, enacted by Congress, to this finding of facts is the duty of the judge. Here, however, we have one individual cast in the triple rôle of legislator, judge and juror.

[2] I.T. 3960, IRB:1949-14.

Continuing Survey of Building Costs Conducted by College and University Business

College	Function	Type Construction	Total Cost	Total Cubage	Cubic Foot	Contract Cost for			Approximate Wage Rate					Date of Contract Award
						Gen. Construction	Heating, Plumbing	Electrical	Electricians	Bricklayers	Masons	Plumbers	Carpenters	
Texas Technological	Two Wings to Administration Bldg.	Reinforced concrete; steel frame; brick, tile and stone walls; tile roof	$ 669,879	804,000	$0.83	$ 498,050	$107,765	$49,731	$2.25	$3.25	$1.12½	$2.25	$1.87½-2.00	Unknown
Arizona State	Campus Shop, Maintenance and Supply	Reinforced concrete and steel frame, floors and roof; brick walls	91,389	178,105	0.51	91,389	7,818	4,219	2.25	3.00	2.50	2.25	2.10	July '49
Arizona State	Addition and Alteration to Library	Reinforced concrete columns and floor; roof slab; face brick walls	478,594	985,115	0.48	333,524	79,495 16,900	23,500	2.25	3.00	2.50	2.25	2.10	Dec. '49
Univ. of Alabama	Medical-Dental School	Reinforced concrete and steel	1,286,000	1,225,908	1.05	Included in Gen. Con.	Included in Gen. Contract		Prevailing wage in area					Jan. '50
Univ. of Alabama	Addition to Stadium	Concrete	213,542	Unavail.	Unavail	Included in Gen. Con.	Included in Gen. Contract		Prevailing wage in area					Jan. '50
Delta State Teachers	Natural Sciences, Home Economics, Mathematics	Brick and tile	365,000	Unavail.	Unavail	287,000	37,000	20,000	2.00	2.25	2.25	2.00	1.50	Aug. '49
N. D. Agricultural	Library	Steel frame; brick and tile	389,330	Unavail.	Unavail	309,907	39,353	20,070	2.00	2.50	2.50	2.10	1.75	April '48
Memphis State	Cafeteria and Student Center	Brick	473,077	656,250	0.72	322,877	33,901 24,955	19,770	2.40	2.50	.....	2.37½	1.90	Mar. '50
Memphis State	Gymnasium and Health Bldg.	Brick	506,553	416,000	0.36	378,429	31,537 41,787	30,679	2.40	2.50	.....	2.37½	1.90	Mar. '50
U.C. at Los Angeles	Business Administration and Economics	Reinforced concrete	1,412,306	1,221,000	1.16	854,944	133,629	79,372	2.30	2.00	1.78	2.00	1.65	April '47
U.C. at Los Angeles	East Wing to Library	Reinforced concrete	798,506	690,000	1.16	502,796	79,993	16,313	2.30	2.00	1.78	2.00	1.65	May '47
U.C. at Los Angeles	Service Bldg.	Reinforced concrete	245,763	256,428	0.96	128,071	6,004 13,222	9,403	2.35	2.25	2.10	2.50	1.90	June '48
U.C. at Los Angeles	University Elementary School	Reinforced concrete block	427,887	21,930 (sq. ft.)	19.51 (sq. ft.)	319,149	Not segregated	.....	2.80	2.62	2.20	2.75	2.12	Jan. '49
U.C. at Los Angeles	Unit "A" Engineering Bldg.	Reinforced concrete	973,667	56,308 (sq. ft.)	17.29 (sq. ft.)	774,804	Not segregated	.....	2.80	2.62	2.20	2.75	2.12	Oct. '48
U.C. at Los Angeles	Unit "B" Engineering Bldg.	Reinforced concrete	Incomplete	62,436 (sq. ft.)	.....	719,900	Not segregated	.....	2.80	2.62	2.20	2.75	2.12	Oct. '49
U.C. at Los Angeles	Law School Bldg.	Reinforced concrete; face brick	Incomplete	78,948 (sq. ft.)	.....	1,014,580	Not segregated	.....	2.80	2.62	2.20	2.75	2.12	Jan. '50
U.C. at Los Angeles	Geology-Chemistry Bldgs.	Reinforced concrete; face brick	Incomplete	257,030 (sq. ft.)	.....	1,937,600	593,056	283,889	2.80	2.62	2.20	2.75	2.12	Jan. '50

BACK SIPHONAGE

can be prevented

W. W. BROOKS
Plumbing and Heating Industries Bureau
Chicago

A FEW YEARS AGO SEVERAL STUDENTS working in a laboratory building at Michigan State College, although all in excellent health, became suddenly and violently ill.

Fifty students were hospitalized and one died from undulant fever because of a defective sterilizer and avoidable faults in the laboratory plumbing system. Harmful undulant fever cultures, supposedly killed in the sterilizer, were siphoned back into the potable water supply.

The plumbing system, health department investigators found, was taxed beyond its capacity and functioned improperly because of the overloading of the water supply pipe lines with additional fixtures added after the original piping was installed. A vacuum, often created on overloaded pipe lines, siphoned contaminated water back into the supply lines or allowed a reverse flow during dormant periods.

This process, called back siphonage, prevails to an alarming degree in plumbing systems which have been neglected or which receive only haphazard inspections. College and university plumbing systems are no exception.

Back siphonage is generally described as the condition that occurs when a partial vacuum is formed in a pipe carrying liquid, as a result of a low or negative gauge pressure. In relation to water supplies, it is assumed that the piping system carries drinking or domestic water supply.

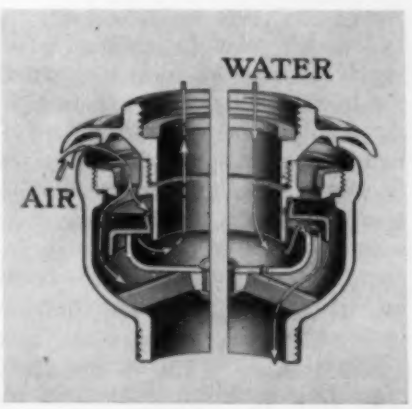
A simple siphon may be used to illustrate the problem.

Atmospheric pressure varies with certain conditions and decreases with an increase in altitude. The mean atmospheric pressure at sea level is 14.7 psi (pounds per square inch), sometimes called one atmosphere. This pressure is that produced by a column of water 33.9 feet high or a column of mercury 29.92 inches high, water and mercury having different specific gravities.

Should all the air be drawn out from a vertical tube having one end submerged in water at sea level, the water will rise to a height of 33.9 feet, the outside atmospheric pressure forcing the water up into the tube.

It may easily be seen then that if a potable water supply piping system, having a submerged discharge to an open vessel, such as a water closet or sink, was subject to a partial vacuum, liquids of a nonpotable nature might be drawn into the potable water line and thus contaminate the latter supply.

Above: A modern flush valve assembly with vacuum breaker (directly below the valve handle) installed on a water closet. Below: A close-up of the same flush valve assembly.



The commoner types of back siphonage in which contamination may occur involve:

1. Storage tanks and reservoirs containing nonpotable liquids with below-the-rim discharge from a potable supply
2. Waste water connections to sewers
3. Flushing connections to sewers
4. Swimming pools with below-the-rim inlets
5. Automatic devices for sealing floor drains
6. Plumbing fixtures with below-the-rim inlets, such as lavatories, sinks, laundry trays, integral water closet flush box and water closet bowl, non-anti-siphon ball cocks in closet tanks of either low or high design, toilet flush valves (not equipped with vacuum breaker), bathtubs, water ejector, automatic washing or dishwashing machines
7. Drinking fountains of the unapproved type. (Bubbler and/or fixtures; also refrigerated water dispensers)
8. Boiler feed using safe and unsafe water
9. Filters and wash water systems
10. Cooling water for air conditioning units and refrigerating units
11. Drains from ice water tanks to sewers
12. Water supply connections in chemistry laboratories

Independent investigation by various agencies has recently established beyond a shadow of a doubt that potentially dangerous situations are created by common plumbing practices formerly regarded as safe. Practicable recommendations for the correction of these conditions have been worked out

and have already been applied by some fixture manufacturers to the design of new equipment to eliminate health hazards. In many instances, and especially in the larger cities, sanitary codes have been revised in the light of these data.

The findings of these agencies add up to three main points:

1. Direct connections between potable water supplies and unsafe water must be avoided by maintaining an unenclosed air gap of sufficient distance between the point of discharge from the potable supply pipe and the highest level to which sewage or non-potable water can possibly rise.

2. When this is impossible, an approved vacuum breaker, in which a complete cycle of all moving parts is completed each time the supply is used, must be installed in a safe and easily accessible position between the unsafe fixture and the supply piping.

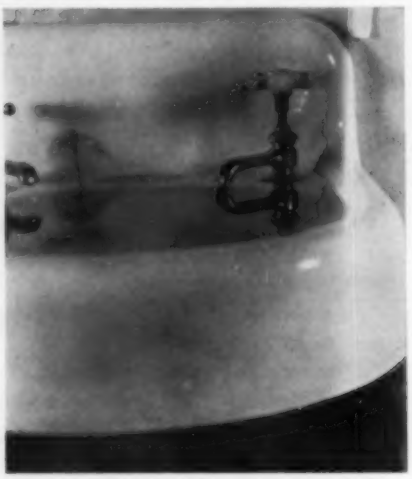
3. In all cases, special attention must be paid to adequate supply piping, since many vacuum formations are caused by improperly designed piping. Insufficient flow at plumbing fixtures of all types must be regarded as a health hazard.

For most of the plumbing fixtures in common use in colleges, the first rule is easily observed. There is no reason why fixtures like sinks, lavatories, laundry trays, and bathtubs should not have their supply inlets well above the maximum possible water level in the fixtures. This completely eliminates the possibility of back siphonage at such points, provided no hose attachments are employed.

Manufacturers have been quick to revise their designs for fixtures of this type accordingly, and the only danger is the rather remote one pointed out by the American Medical Association in its warning to state authorities to be on the lookout for "dumping" of old-fashioned unsafe fixtures, barred from cities, on small villages and rural communities.

The major part of most college plumbing installations, therefore, may be made safe against the dangers of back siphonage by simply seeing to it that up-to-date fixtures are used, or, failing this, that special means are employed to raise the supply spouts sufficiently. In alteration work, this step can readily be taken whenever unsafe fixtures are encountered.

In the case of fixtures in which the inlet is customarily of the submerged type, like the water closet, solution of the back siphonage problem is somewhat more difficult. Virtually all water closets are classified technically as submerged-inlet fixtures, but for differing reasons. Valve operated, jet-type closets, particularly with side spuds, are the worst offenders, since in this type a direct cross-connection can be effected at any time when pressure falls below atmospheric if the valve is of the so-called unstable type which offers little resistance to back-flow.



Here is back siphonage in action. Faulty installation of the faucet on the right placed it too low so that the water in the filled lavatory basin is sucked up into the supply line by the slightest vacuum. It is in this way and by cross-connections in plumbing pipes that the waterborne diseases are started and then are spread.

The only relief for vacuum in the supply afforded by such a system is the inlet for air through the ports in the flushing rim, which may be contaminated or submerged if the closet is clogged. For this reason, all valve operated closets, whether they have submerged jets or not, and valve operated siphon jet urinals as well, should be equipped with approved vacuum breakers.

The tank closet presents a more complicated problem. Here much depends on the height of the tank: while closet tanks of all types have long been equipped with submerged inlets (hush tubes) and all are subject to some degree of pollution through various objects falling into the top of the tank, only the close coupled type in which the bottom of the tank is below the level of the top of the bowl is subject to sewage contamination, and this only if the closet becomes clogged so as to raise the level of sewage to this point.

Closet tanks are sources of water pollution caused by falling objects as well as contamination from the bowl whenever a force cup is used in the closet bowl.

Plumbing equipment is now available which meets the essentials of health standards for college water supply systems. Anti-siphon ball cocks can be supplied for the tank closets. Suitable vacuum breakers for flush valve closets and other fixtures which require submerged inlets have been developed and are supplied by the manufacturers of the flush valves. These should always be used on all fixtures where there is danger of contamination.

In addition, a variety of air-break fittings for special fixtures which normally involve direct cross-connection between the supply and drainage systems may be drawn upon to fill every need.

This equipment is finding such ready acceptance in present college and university building plans that soon the problem of back siphonage and its attendant dangers will be nonexistent in new construction. The vast numbers of existing installations that might harbor this hazard can only be found and corrected with the supervision of a qualified plumbing contractor who will know where to look, what changes should be made, and how alterations to vital plumbing should be carried out for 100 per cent safety and sanitary uses.

In many communities the plumbing contractors will make free-of-charge surveys of premises to check the safety of water and sewage systems for the owners in the interest of public health protection.

If any additional information is desired, superintendents of buildings and grounds and others concerned with college and university plumbing systems may obtain help from local associations of plumbing contractors and their members.

Tests have proved that six high count percale sheets can be laundered for the cost of laundering one heavy duty muslin sheet.

What to consider when purchasing

INSTITUTIONAL LINENS

FRANCES GARLAND
Owner, the Prade Company
Dallas, Tex.

THE ITEMS WE FIND OF MOST CONcern to buyers of institutional linens are sheets, pillow cases, table linens, towels and blankets. Of course, there are many others, but these make up a volume.

The heavy duty muslin sheet is accepted as most durable for institutions, although percale construction is coming into its own in many institutions, primarily because percale sheets are much more reasonable to launder, they dry faster, they use less room on the shelf, more can be laundered at a time, and the sleepers prefer them. It has been found that six high count percale sheets can be laundered for the cost of laundering one heavy duty muslin.

Regarding the heavy duty muslin sheets and pillow cases, classified by the government during the last war as type 140, there are some differences among the various brands.

In this so-called 140 classification the chief differences are the three things that determine whether a sheet is good or inferior. They are the quality and character of the cotton itself, the craftsmanship involved in the actual manufacturing of the sheet, and the precision finish of the sheets and pillow cases.

By the quality and character of the cotton we mean: (1) The length of the cotton staple. Naturally, the longer the staple, the more cotton fiber there is to entwine around other staples, thereby producing a stronger thread and eventually a stronger sheet. (2) The color of the cotton. The whiter the cotton the better the quality. The whiteness of the cotton ensures the whiteness of the sheet during its life period. (3) The strength of each cotton fiber. Different varieties of cotton vary in strength as well as in other qualifications. Of course, the strong cotton fibers make the strongest sheets, and all good sheets are made from the strongest cotton fibers obtainable.

The craftsmanship involved in the actual manufacturing of the sheet comes only from years and years of experience and from the transmission of knowledge from one master craftsman to another; for example, from one generation to another, from father to son.

In speaking of the precision finish of the sheet we mean (1) it is finished so carefully that the sheet can almost be identified by its smoothness, and (2) that only a very small percentage of mineral filler is used in precision finishing. Some sheets have a considerable amount of sizing in them to produce the desired smooth finish. This washes out with the first laundering, leaving a coarse, sleazy, porous fabric. In precision finishing of good sheets more cotton is used and less mineral filler, leaving after the first laundering only a good cotton sheet.

While the thread count is of greatest importance to the manufacturer and the United States Government, it is not so much so to the consumer. The government guarantees the thread

From a paper presented before the Texas-Oklahoma-Arkansas meeting of the National Association of Educational Buyers, Fort Worth, Tex., November 1949.

count of all sheets. It requires all mills to meet federal specifications in making their sheets and it requires them to put a label bearing that thread count on each one. However, there is a variance in the thread count over and above federal specifications. Innumerable daily tests of the many brands of sheets on the market prove beyond doubt that the more reliable mills manufacturing quality sheets have the greatest number of threads per square inch over and above those federal specifications. After all, the thread count is not the all important factor; it is the character and quality of cotton, the craftsmanship of manufacturers, and the precision finishing. Even though there are many brands of sheets in the 140 classification, only those mills which produce good quality, longer wearing sheets consider *all three* of these factors to be of utmost importance.

Tests are made constantly on all branded sheets to ascertain the tensile strength or the breaking point of the sheets; the exact weight of the yarns; the reaction of the different varieties of cotton to moisture; the percentage of nonfibrous matter or impurities, such as dirt, wax, oil and sizing, in the sheeting, and the percentage of shrinkage. Surprisingly, a good quality of finished sheet, if laundered properly, will shrink 5 per cent in length and none in the width.

RESULT OF TEST

For instance, the result of a test run by the United States Testing Company, Inc. on a major brand of sheet and an unbranded sheet was as follows:

Percentage of Nonfibrous Matter
(based on moisture free weights of samples)

	Branded 0.6%	*Unbranded 3.0%*
SHRINKAGE TEST	*Warp*	*Filling*
Branded	6.2	1.4
Unbranded	7.0	1.8
THREAD COUNT		
Branded	72.8	67.4
Unbranded	75.6	71.4
BREAKING LOAD		
Branded	82.0 lbs.	82.0 lbs.
Unbranded	75.8 lbs.	79.8 lbs.
WEIGHT PER SQUARE YARD		
Branded 4.73 oz.	*Unbranded 4.73 oz.*	

The life of a sheet depends upon: (1) the quality of the sheet; (2) the manner of laundering; (3) the manner of rotating the sheets (always be sure to use sheets put on shelf first), and (4) the quantity of sheets.

There should be eight sheets to each bed, two on the bed, two in the laundry, four on the shelf. It requires one week for sheets to dry completely because the little cotton fibers are hollow and retain moisture that long.

Table linens are next in importance. Irish linen, even the very fine qualities, always shows a slight unevenness in the thread, and tiny knot-like lumps show when the fabric is held up to the light. This is one of the inherent characteristics of the flax fiber and is one of the tests we use to find out whether an article is made of linen or not. Beware of linen that

has a lot of rough dark spots or lumps when held up to the light. These are what is known as slubs and indicate that the yarns are not first quality. No matter how heavy the fabric is it cannot give satisfactory wear if there are many of these slubs. Linen should have a clean appearance when held before the light.

As to the weave, it is best by far to buy a good single damask or good double damask and never a cheap low-count double damask. In a single damask weave the fabric is woven with one thread of warp over and four threads of warp under the weft thread. In double damask the ratio is one thread over and seven threads under, alternating down the cloth. The fineness is determined by the thread count, the weight per square yard, also the tensile strength, but more important is the experience shown in spinning, weaving and bleaching the goods.

Even though the initial cost of real linen may be higher than that of some of the substitutes, we believe that over a period of years linen will cost less, on a wear or mileage basis. In addition, linen has a distinctive appearance. We recommend a minimum of a four-way setup—one in use, one in the wash, one on the shelf, and one in reserve. Linen will regain its strength if allowed to rest and absorb moisture from the air. In the storage of real Irish linens, it is best to have them in a cool place, never in a hot storeroom.

Towels, like sheets, must be made of long staple fibers to be the most durable. They should have a close, firm underweave, a "double-ply" yarn to hold the many loops on the surface. If the underweave breaks loose, the towel must be discarded. A towel is not a good one merely because it is thick and heavy. The evenness of the length of pile in turkish towels is important, for if some of the loops stand out farther than others, they will catch and pull out in the laundry. A closely woven selvage and closely woven hems are important factors.

Use "the pin hole test" for checking the underweave. Hold the towel up before a strong light. If tiny pin holes of light come through, the towel is closely woven for durability. If the light comes through in gaps and splotches, the underweave is too loosely woven to stand up under long wear. If a towel is made of part-waste cotton, as some are, it will break down under wear. There are no long fibers to hold the threads firmly together, although before laundering the part-waste cotton cannot be detected easily, except that the threads have to be twisted tigher to hold and, therefore, are not as absorbent.

COTTON MIXED BLANKETS BEST

If blankets are to be laundered some cotton mixed with the wool improves the laundering quality and does not detract from the durability. To get a warm blanket, notice whether the nap is thick and fluffy. Pull the blanket crosswise with a firm and even tension. If the yarns pull apart easily, the nice looking nap covers a weakly woven foundation.

The term "all wool" can be very deceiving—shoddy wools, made by reclaiming the fibers from used woolen fabrics, may be combined with new wool and woven into blankets that will pass every legal and chemical test, but the fibers are short and lifeless and cannot produce a fine, durable blanket as do the proper grades of soft, elastic, virgin wool.

Some of the finest contract blankets made for institutional use, therefore for durability, are 100 per cent virgin wool filling on a fine cotton warp, because this has been proved to be more practical as to warmth and service. Other fine blankets, and less expensive, are made of virgin wool and rayon which makes an attractive, warm and strong construction. Of course, cotton and wool is still an excellent combination used in even proportions for durability and warmth.

Carson Gulley, chef at the University of Wisconsin for more than 23 years.

Every plate a bouquet makes for

SUCCESSFUL MENUS

CARSON GULLEY
Senior Chef, Division of Residence Halls
University of Wisconsin

TO ME, COOKING IS THE FINEST OF all arts, and when it is practiced with painstaking care it embodies a high conception of beauty and goodness.

The bouquet in food is discovered by seeing, smelling and tasting. All edible food should possess a bouquet in flavor as well as in appearance. Food is the nucleus of life. It supplies man with fuel for heat and energy, and materials for growth and development. A man must eat to live; in reverse, a man lives to eat, because of the pleasure and enjoyment he gets from a beautiful meal through the senses of smell, taste and sight. It is important to satisfy all three senses.

For instance, what is it that makes baked beans attractive as well as good? It is a perfect creation in flavor combination, baked into a butter-tender finished product that invites the diner to taste of its goodness by appealing to both his sense of smell and his sense of sight. After experimenting with that idea in mind, I have found that the following recipe fulfills those requirements. This recipe may look simple, but if given a trial it will prove its value. If properly prepared it will win many friends that have long been lost to this hearty and healthful dish.

Baked Beans
(150 servings)

7 gal. water
25 lb. navy beans
10 lb. salt pork
3 lb. 2 oz. brown sugar
1½ lb. white sugar
5 lb. tomato purée
2½ lb. onions
5 tbsp. prepared mustard
7½ tbsp. salt

Wash beans; soak overnight. Combine purée, sugar, mustard, salt, onion and water. Heat together until boiling. Place diced salt pork in 5 gallon containers; add beans. Pour in tomato mix and add water to about 2 inches above beans. Cover and cook in the oven at simmering temperature, or about 250° F., overnight or at least from 12 to 18 hours. If oven gets hotter during that time it may be necessary to add more water. Watch to see if the under side of the lid becomes darkened or burned; if so, when steam condenses on the lid it will cause the beans to become strong flavored and taste burned. Any signs of burn on the lid should be cleaned off.

The reason for the long cooking recommended in this recipe is that fermentation of raw bean hulls in the stomach causes gas; shorter cooking may tenderize the inside but leave the hull raw. But with long, slow cooking the whole bean is thoroughly cooked, becomes butter tender, and also keeps its shape. The flavor of all ingredients is thoroughly diffused, and the whole texture is smooth.

By the use of proper temperature controls and correct cooking methods this recipe brings out the flavor and palatability of the basic ingredient—plain navy beans—as no addition of herbs, spices or other seasoning could

do. In any use of the oven, but especially in such a long, slow process as this recipe calls for, it takes double checking to assure that the oven temperature is correct.

Before working out the foregoing method, our kitchen found it was sufficient to use 70 pounds of beans to serve 600 portions. With this recipe we find it necessary to cook 100 pounds of beans to serve the same number of persons.

Baked beans, a mainstay in the simple or inexpensive bill of fare, can be combined with fresh tender garden spinach and topped off with a crisp salad or a cold fruit cup to make an inexpensive meal with both eye and taste appeal.

It's important to preserve the tempting green of the spinach to create the proper picture. I have been able to do this best by cooking the spinach in butter for three to eight minutes with no water added.

Careless cooking has destroyed the popularity of spinach, so you may want to substitute another green vegetable, such as broccoli. Fresh vegetables right out of the garden need no trimmings. They are at the peak of freshness, food value, and palatability. But fresh frozen vegetables, even though fresh looking to the eye, are lacking in full flavor. The process of blanching and freezing seems to rob them of some of their original flavor. I have found that this flavor is restored by adding a little monosodium glutamate. It will bring back the true flavor; it will not, however, bestow a goodness the vegetable did not have originally. If, for instance, the material you are using has a harsh, stale flavor to begin with, adding monosodium glutamate will not improve it. It merely will intensify the flavor that is already there.

What comes to your mind when you think of a counter lunch? Is it a piping hot bowl of creamed vegetable soup, followed with a hamburger in a bun, a fresh citrus fruit salad, and hot chocolate, coffee or milk?

In the making of soups or sauces the first objective is the essence that is the substance or extractive of certain foodstuffs, such as meat, poultry, fish or vegetables. It must be good and tasty; if not, the foundation for the sauce or soup is not substantially laid.

In the recipe given here, if the vegetables are cooked as directed, they will be on top in their own distinctive colors when the soup is served, taking their places in the decorative scheme.

Creamed Vegetable Soup
(200 servings)

½ gal. onions
3 lb. carrots, cut julienne
3 lb. celery, sliced thin
3 lb. white potatoes, cut julienne
1 lb. green peppers, sliced thin
2 cups parsley, chopped
1½ No. 10 cans tomatoes
½ cup sugar
½ cup salt
1½ tbsp. celery salt
1 tbsp. white pepper
1 tsp. mace
1 qt. fat or butter
3 gal. good stock
4 gal. cream sauce

With the exception of the green pepper, tomatoes and potatoes, sauté vegetables in fat, stirring occasionally, until translucent. Wash potatoes until white; add potatoes, tomatoes and green peppers to sautéed vegetables and cook from five to 10 minutes. Add hot stock and bring to a boil without stirring and simmer until potatoes are tender. While the potatoes and vegetables are cooking, make a cream sauce by using

4 gal. whole milk
8 cups flour
8 cups butter

Cook flour and butter into a smooth paste, add hot milk and whip into a smooth medium cream sauce. Add all of the seasoning to the cream sauce. If a weak stock is used for the soup, some chicken or beef base seasoning should be added for extra flavor. Skim the fat from the simmering soup and stir the vegetable mixture into the cream sauce. In other words, add the "red to the white" to prevent curdling. The soup should be served hot with the chopped parsley sprinkled in just before serving.

PREPARE AS NEEDED

If this soup is not to be served within 30 minutes, it should be mixed in proportion to the volume of cream sauce and the vegetable base in relays as needed for 10 to 15 minutes before time of serving. If the entire amount of vegetable base, including tomatoes (or asparagus, if used), is mixed and left to stand in a steam kettle and kept hot for too long a period it will separate or curdle.

The hamburger, whether it is to be cooked rare, medium or well done, should be made of fresh ground beef—all beef—marbled with good white suet to maintain a juicy finished product. The bun should be split, buttered and placed on the grill at the same time as the hamburger. When the hamburger is finished the bun should be brown. Serve the hamburger on this hot toasted bun, open face, with a choice of relishes.

Salads are always a favorite and have a special place in the meal. They may be made from meats, poultry, seafoods, cheese, eggs, vegetables and fruits. The most important job in the preparation of a salad is the selection and care of the raw materials. Each ingredient should be properly prepared if a satisfactory finished product is to be had. Ingredients for salads should be kept really *cold*.

When using canned fruit in a jellied salad it is better to use the juice of the fruit for the liquid instead of water. This substitution will intensify the flavor still more if one-half of the liquid required is heated to dissolve the gelatin, and the other half left cold and "pepped up" with fresh lemon juice.

To ensure eye appeal, since many salads use lettuce or a similar green for a base, some thought should be given to how this can create a crisp, tempting foundation for the salad as a whole. A leafy green bed means the difference between a tempting salad that will be eaten, not only for the vitamins in it but for its appearance as well, and a tired wilted mass that will be passed up in a cafeteria line. Here, again, it's the picture that counts.

Another example in planning menus that combine an appeal to sight, smell and taste is what may be called a businessman's dinner with an entrée of rib pot roast of beef, brown gravy, mashed potatoes, buttered peas, head lettuce with tomatoes and thousand island dressing, Parkerhouse rolls, apple pie and cheese, coffee or milk.

It is easy to prescribe the different courses in a meal but unless the cooks who prepare it are willing to work and to please, the menu has little importance. For instance, a pot roast of beef is appealing to the eye only if it is properly prepared by baking it in an oven from start to finish at 300° F. until golden brown, tender, juicy and delicious.

Parkerhouse rolls sound inviting, but they will look and be good only when they are baked the day they are to be served, and baked at the proper temperature to ensure crunchy crispness.

I have included apple pie on the businessman's dinner for two reasons. Apple pie is a man's dessert, and it

also gives me a chance to bring out one of my favorite theories on menu planning. In the first place, one should plan to use seasonal foods to get garden freshness as well as the most out of the food dollar. Second, to be positive that the food served is actually as tasty and attractive as the written menu promises, the menu planner is wise if he or she indicates the variety of fruit or vegetable suitable for a specific cooking formula. I was convinced of this fact for a long time before I actually tried to prove it to others. Just as the proof of the pudding is in the eating, so was it necessary for me to demonstrate my theory in practice.

EXPERIMENT WITH APPLES

In my chef's training class at the University of Wisconsin we experimented with different varieties of apples to determine what cooking methods are best adapted to the varieties available to us. We learned that in planning menus using apples, the month of the year made a difference. In October the McIntosh made the best pie—it looked the best, it smelled the best, and it tasted the best. But in December that same variety of apple becomes too mellow and flavorless. In November it was the Rome Beauty that produced the best results.

From the standpoint of eye appeal alone, the Jonathan and Wealthy stole the show when it came to cinnamon apples. These two varieties presented a beautiful picture; they retained the bright true red and finished off with a fine high gloss. When we tried other varieties, some looked pink and half washed out. Others soaked up the coloring and were dull and saturated looking. Still others refused to color at all.

The Winesap proved to be the best salad apple throughout the season. The skin took a high polish for decorative purposes, the flesh was firm, and the flavor a delightful combination of the tart and the sweet. Contrary to popular belief, the Delicious was second choice.

Whether you buy to fit a menu or prepare a menu to accommodate the stock you already have on hand, you'll get better results if you know which variety of fruit or vegetable is best for your purpose.

In a banquet or holiday dinner menu we might serve turkey and celery dressing or choice rib roast of beef, candied sweet potatoes or parsley buttered new potatoes, fresh or fresh frozen asparagus tips or Brussels sprouts with cream or cheese sauce, assorted rolls, stuffed celery, olives and radishes, cranberry sauce, steamed Christmas pudding and hard sauce under flambé, and coffee.

When a large dinner like this is planned it seems still more important than for everyday menu work to plan a practical color scheme to combine attractiveness with goodness, and to be sure that the plate arrangement is inviting. Overcrowding, too much food on the plate, detracts from the over-all appeal every bit as much as obvious skimping will do. Then, again, unless the vegetables have been carefully prepared and cooked they will detract from the picture by having a colorless, overcooked appearance that is most uninviting.

To maintain my slogan of every plate a bouquet, let me just venture a word about making candied sweet potatoes in order to have them retain their eye appeal. There's nothing that can spoil an otherwise beautiful plate more easily than candied sweets that have been cheated out of their firmness and glossy glaze. I have found that candied sweet potatoes turn out best if they are not precooked before they are candied. If they are cooked entirely in the sirup, they will retain that fresh bright golden yellow color and keep their shape and identity when they are done.

One gallon of sirup consists of 7 pounds of sugar and 2 quarts of water stirred together and brought to a boil. This amount of sirup is sufficient to candy 40 pounds' purchase weight sweet potatoes. Five times that amount will yield 200 servings.

Arrange potatoes cut in portion sizes in a buttered baking dish. Bring sirup to a boil and half cover the potatoes. Bake in a 300° oven until potatoes are tender. It may be necessary to turn potatoes once or twice to prevent the part that is not entirely covered by sirup from becoming too dark or burning. If these portions are weighed and measured accurately, when the potatoes are cooked the sirup will be thick and the potatoes will be bright and golden colored and covered with a beautiful glaze.

Just to satisfy my own curiosity, I ran a few tests on roasting turkeys to see which method gave the best results. I found that rubbing the bird with butter resulted in a more uniform golden brown color than did the use of other fats and oils; that the bird then retained its juices during the cooking process. When I used other commercial fats under the same conditions the juices seemed to flow like tears in the cooking process. My choice of method, for appearance as well as flavor, is to maintain a uniform heat of not more than 300° F. during the entire cooking time, with the bird on a shallow pan or a bake sheet. At no time do I baste the fowl.

Poultry should be stuffed the day it is to be cooked with freshly prepared stuffing. Have the stuffing as hot as you can handle it. If you stuff poultry the day before it is cooked, you are taking chances of changing the flavor of the turkey or even of getting food poisoning. Stuff the entire cavity, including the crop cavity, but do not pack it tightly as the dressing will expand during cooking. Allow about a cup of dressing for each pound of turkey.

By following these directions, a 22 pound turkey will take no longer than 4½ hours of cooking time.

USE EDIBLE GARNISH

The final touch in dressing up a plate always has been the addition of a bit of garnish. I like to plan a meal so that the food itself is its own garnish. The colors blend or set off one another so that the whole picture is one of edible beauty. If extra trimmings need to be added, I plan and choose so that even the garnish will be eaten. For instance, French fried parsley can be just as decorative as a fresh sprig, and more people will be induced to eat it instead of sending it back to the kitchen to be discarded.

A man has a right to expect to sit down in his own home to a carefully thought out and tastefully prepared meal. The table should be set properly with silver and linen. To live up to what others expect of us, we must know our business down to the last detail. A bouquet of seasoning blended to harmonize in a tempting flavor is like music that comes in many pieces, each octave in harmony with the other, creating a pleasing tone to the listener's ear.

A man's meal comes in many courses, pretentious or modest, but it still can be inviting, tempting and palatable. From the lowly baked bean luncheon to the fancy Thanksgiving or Christmas dinner, the bouquet is the thing. It should stand out as a pretty picture, as a tempting odor, and as a satisfying taste sensation.

NEWS

President Signs Land-Grant Aid Bill . . . Educational Institutions Liable to Taxation on Some Business Operations . . . Decision Reached in Two Segregation Cases . . . Wilmington Establishes Work-Study Plan

Personnel Association's Annual Meeting at Indiana University

BLOOMINGTON, IND.—The College and University Personnel Association will hold its annual meeting at Indiana University, Bloomington, from July 30 through August 2.

A wide variety of university personnel problems will be discussed during the four-day sessions. Discussions will deal with the following: "The Content of a Nonacademic Personnel Program," "Using Faculty Resources in Developing and Expanding the Nonacademic Program," "Building a Pay Plan, With Special Reference to Times of Rising and Falling Costs of Living," "Recruiting Problems," "The Problems of Minority Groups and Employment," "Negotiation of Union Contracts," and other items regarding college personnel programs.

Program plans are under the direction of Max M. Sappenfield, Indiana University Medical Center; Robert F. Moore, Columbia University; Byron Field, University of Washington; Orie E. Myers Jr., Emory University, and Arlyn Marks of the State University of Iowa.

Penn State Forbids Liquor on Campus

STATE COLLEGE, PA.—Pennsylvania State College directed the removal of bars from fraternity houses and other student quarters and expressly forbade the possession or use of alcoholic beverages on college property in a sweeping regulation announced recently by James Milholland, acting president.

In a letter addressed to "all student organizations," the college expressed its disapproval of the reported increase in student drinking since the war and said the new order was prompted in part by "proof that the public considers the presence of bars as evidence of drinking and the approval of drinking as part of fraternity and college life."

Noting that teen-agers were replacing veterans on the college campus, thereby posing an environmental problem for younger students, the college appealed to student organizations for their active support in cooperative measures designed to "assist in the development of enduring habits and attitudes consistent with Penn State objectives."

September 10 was set as the deadline for removal of bars from "the residence or headquarters of any fraternity, rooming house, society or other student organization." The letter, signed by the acting president, warned that "those failing to comply will be dealt with by officers of the college."

President Signs Bill That Benefits Colleges

WASHINGTON, D.C.—As a result of President Truman signing H.R. 7057, land-grant colleges will receive an estimated 5 to 10 million dollars in federal funds.

Under the new law, payments of tuition and fees for veterans under the G.I. bill will not be deducted from other federal payments to the colleges.

The House veterans' committee, which sponsored the legislation, made the estimate as to the amount of money involved. The committee said it felt that the payments for training of veterans should not be deducted from other funds. Congress appropriates funds from time to time for the benefit of the land-grant colleges.

This action was fought strenuously by the Veterans Administration, which contended payments for veteran training should be deducted from other federal payments.

Colleges' Unrelated Business Operations Subject to Taxation

WASHINGTON, D.C.—On June 14 the House ways and means committee voted to reduce or eliminate some of the "abuses of tax exemption by charitable and educational organizations."

Business operations which are held to be not related to the main purposes of tax exempt institutions, such as colleges, will hereafter be liable for taxation. Cited as an example is the college laundry which caters only to students. It would be exempt from taxation. But in the event that a college laundry also accepted laundry from the local community, other than the college constituency, any profits that such a laundry would make would be liable to tax.

According to present plans developed by this committee on taxation, all church-related organizations will be entirely tax exempt, as are college experimental farms, bookstores and publishing presses which may be operated for students or for professional purposes.

It is expected that the committee also will make some revisions of the present "lease-back" arrangement which some colleges have participated in as a means of additional income.

Supreme Court Rules in Two Segregation Cases

WASHINGTON, D.C.—The United States Supreme Court, on the last day of its term, ruled in two cases affecting segregation in colleges and universities.

In its first decision, the court ruled that the University of Texas must admit Heman Marion Sweatt, Negro, to the all-white University of Texas Law School instead of forcing him to attend a new Negro law school. The court found that the new school lacked the

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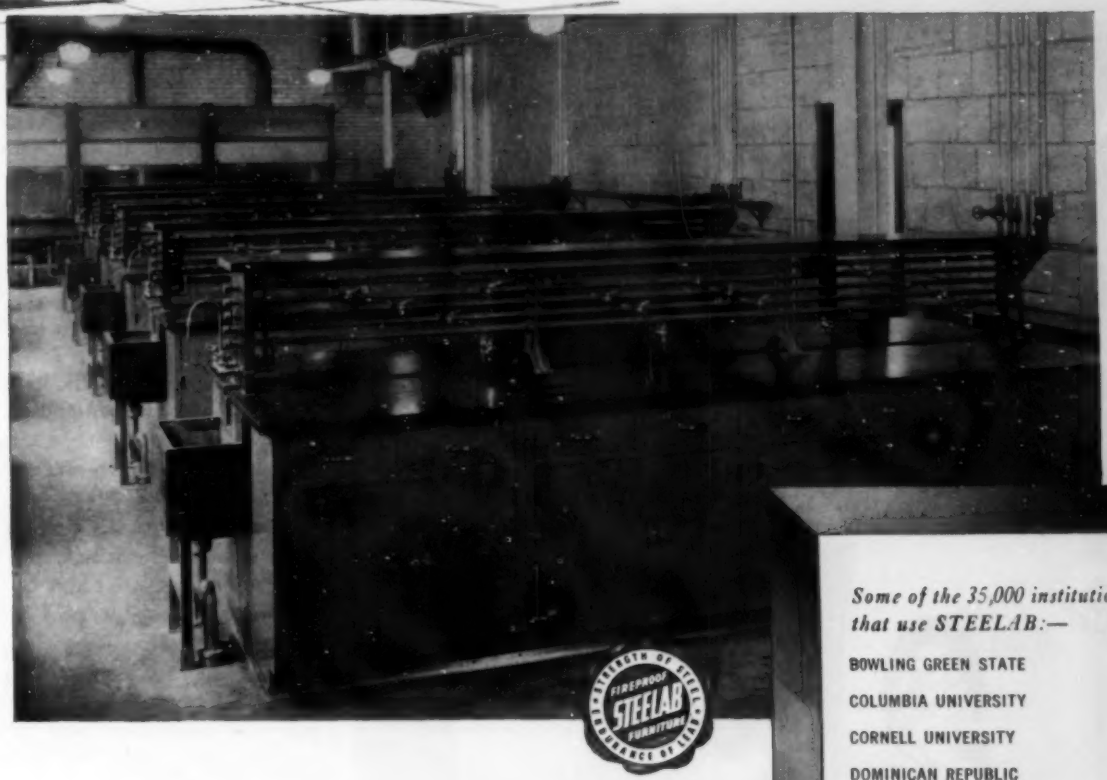

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same educational opportunities and held that the equal protection clause of the Fourteenth Amendment required that Mr. Sweatt be admitted to the University of Texas Law School. All nine justices joined the ruling, which was written by Chief Justice Fred M. Vinson.

In the other ruling involving colleges and universities, the Supreme Court ruled that Oklahoma could not make G. W. McLaurin, a Negro graduate student, sit apart from whites at the University of Oklahoma and be separated in other instances. All the justices supported this decision, which also was written by Chief Justice Fred M. Vinson.

Seton Hall Expands

SOUTH ORANGE, N.J. — According to a recent announcement by the Roman Catholic Archbishop of Newark, Seton Hall College will be expanded into a university with seven major schools.

University Employes' Pay Roll Deductions Will Aid Students

BRIDGEPORT, CONN. — Unique in the history of higher education is the half-tuition scholarship established by the maintenance department of the University of Bridgeport. The 19 men and one woman in the group, including superintendent, custodians, groundsmen, electrician, carpenter and jeep driver, have authorized the university to deduct 25 cents weekly from their pay checks to provide the funds for the $225 annual scholarship.

Arthur L. Chambers, university jeep driver and one of the originators of the plan, in speaking for the department, said, "We realize as well as the faculty the value of an education and we recognize the things we have missed. We want to help others to have that education." Other originators were James R. Cravatas, Thomas Keating, and Edward J. Anderson. This committee presented the idea to Alexis E. Boldakoff, superintendent, and the group drew up the necessary contract and officially notified the university of its offer.

A maintenance department committee will name the scholarship recipient from candidates selected by the university's scholarship committee. The first award will be made for the fall semester to a student who has made at least a "B" average this last year. The pay roll deductions will provide an annual surplus which will be left to accumulate toward an additional scholarship. New members of the department will be notified of the existence of the scholarship and after two months' employment they will be permitted to participate.

Association Helps Locate Stolen Microscopes

CHICAGO. — College administrators who may have been concerned with frequent thefts of microscopes from their laboratories may find the services of the Scientific Apparatus Makers Association to be of help to them. The association has maintained a "file of stolen microscopes" as a public service since it was formed in 1918.

It maintains contact with practically all corporations, firms and individuals who deal in any way with scientific instruments. When a used instrument

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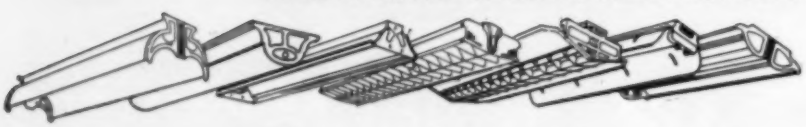

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NEWS . . . . . .

is brought in for sale or pawn, the dealer reports it to the local police, then to the Scientific Apparatus Makers Association. When the association discovers a stolen microscope, it informs the original owner, who then may report the discovery to the police for necessary action.

Carnegie Endowment Gives Library to University

WASHINGTON, D.C.—GeorgeWashington University recently received the library of the Carnegie Endowment for International Peace. The library, evaluated at a minimum of $250,000, is considered one of the greatest collections in the field of international law and international relations.

For 40 years this library has been housed at Pennsylvania Avenue and Jackson Place, the headquarters building of the Carnegie Endowment for International Peace. The site is being taken over by the government for a building project, and the Carnegie Endowment for International Peace will move its headquarters to the new international center in New York City.

Establish Cooperative Plan at Wilmington

WILMINGTON, OHIO. — With the cooperation of local industrial firms, Wilmington College announced that it was establishing a cooperative work-study program to enable students to work their way through college and at the same time acquire valuable experience. Under this plan, students will be able to earn all of their tuition, room and board, and incidental expenses.

Two students will be assigned to one full-time job. One will work on Monday, Wednesday and Friday and go to classes Tuesday, Thursday and Saturday, and the other student will alternate. Because students will be attending classes only three days a week, they will carry a reduced academic program and will attend summer sessions in order to complete the degree requirements in four years.

Reconstitute Institute

ANN ARBOR, MICH. — Michigan's Institute of Social Work will be reconstituted into a School of Social Work, effective next year. The operating headquarters of the school will be transferred from Detroit to Ann

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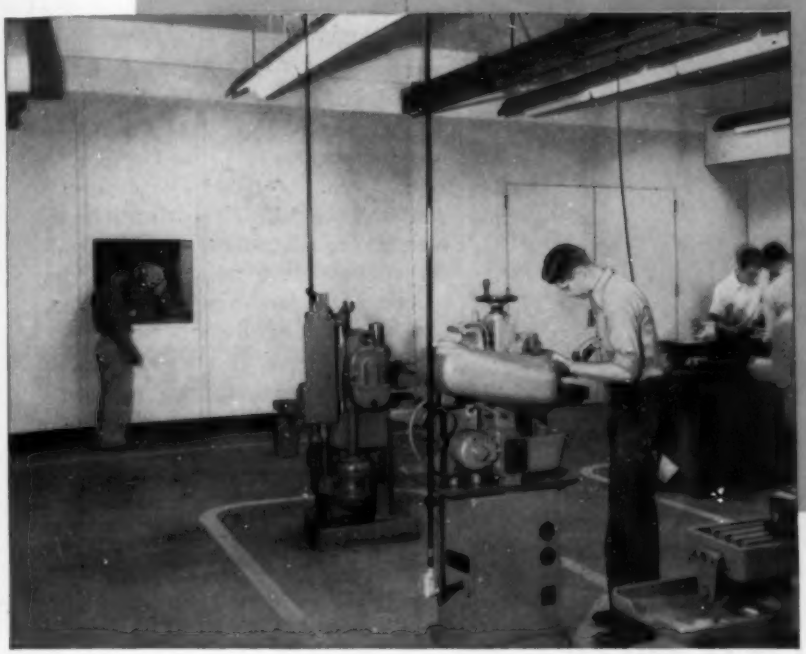

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Arbor on July 1, 1951. After the transfer the school will continue to offer a basic program in Detroit and will work closely with the social agencies of that city. The program as a whole will place special emphasis on public welfare and its administration.

Ohio State to Operate Powerful FM Station

COLUMBUS, OHIO. — Ohio State University recently received approval from the Federal Communications Commission for operation of the 14 kw. Ohio State FM station. The approval followed a recent inspection of the FM installation and an investigation of field test reports by an F.C.C. inspector from the Detroit regional office.

To be the most powerful of five educational FM stations now in operation in Ohio, the university station will have effective coverage within a radius of 60 miles.

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Notre Dame Alumnus Donor of $800,000 Inn

NOTRE DAME, IND. — Ernest M. Morris of South Bend, Ind., chairman of the board of the Associates Investment Company, is the donor of a new $800,000 inn to be constructed at the University of Notre Dame.

The new inn, which will be known as the Morris Inn, was listed recently by the Rev. John J. Cavanaugh, C.S.C., president of Notre Dame, as one of the four new buildings the university hopes to erect in 1951. The other three buildings include a liberal and fine arts building, a science building, and the Fred J. and Sally Fisher Memorial student residence hall.

The Morris Inn will offer living accommodations to all who have occasion to visit the Notre Dame campus and will be utilized particularly by members of educational groups attending conventions at the university, by parents of students visiting their sons, and by returning alumni.

Tentative plans for the Morris Inn provide for a structure to be designed midway between the standard collegiate Gothic architecture, which is prevalent on the Notre Dame campus, and the ultramodern. It will be a three-story brick structure with approximately 75 guest rooms, a large dining room, and one or two smaller private dining rooms.

Delayed Pledging Plan Boon to Scholarship

HARTFORD, CONN. — Delayed fraternity rushing has produced a marked rise in scholarship of Trinity College students, according to statistics reported recently by Joseph C. Clarke, dean of students. For example, the all-college average in the February marking period was 75.76, up from the 74.67 of a year ago. The fraternity average jumped from last year's 72.09 to 75.81, passing the all-college average for the first time in recent college history.

The freshman average also advanced from 71.54 in February 1949 to 72.56 in 1950, demonstrating conclusively, Dean Clarke said, that delayed rushing benefits both freshman and fraternity members academically.

A year ago, the Trinity Interfraternity Council agreed to delay pledging of incoming students until their

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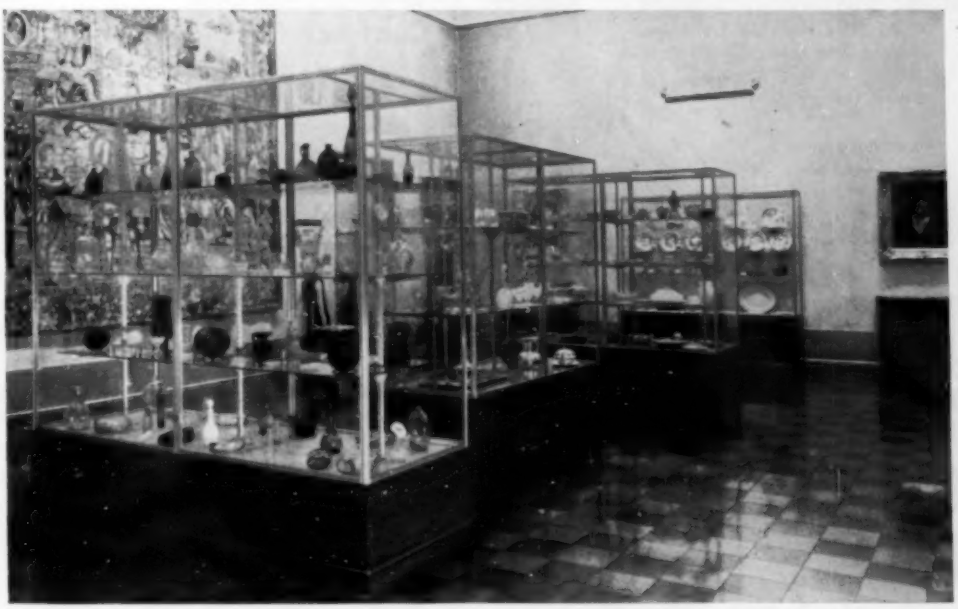

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sophomore year in an effort to give freshmen time to make a reasoned choice of fraternity affiliation, to become accustomed to college life, and also to improve their fraternity scholastic standings.

Approve Provision for New York Colleges

NEW YORK. — The University of the State of New York recently approved the establishment of Champlain College at Plattsburg, N.Y., and Triple Cities College at Endicott, N.Y., as the first four-year liberal arts colleges of the university system.

According to present plans, the trustees of the State University of New York approved the provision for two four-year colleges and approximately 11 two-year community colleges throughout the state. One of the first community colleges to be established in the state is that at Jamestown, Chautauqua County.

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Big Expansion Program on at Southern Illinois

CARBONDALE, ILL. — Physical plant expansion at Southern Illinois University under the $7,100,000 building program authorized by the general assembly for 1949-51 is progressing satisfactorily, according to D. W. Morris, university president.

Structures in the making include service shops (two units), first unit of a library, first unit of a life science building with greenhouses and animal houses, two additional units for the new training school, farm buildings, and a girls' residence hall.

Iowa State Reports Demand for Home Economists

AMES, IOWA. — Figures compiled by Iowa State College reveal that graduates of its division of home economics will have little trouble in obtaining employment.

While requests from employers totaled 383 during 1948-49, they rose to 391 from September through March 1950, a comparable period. One hundred sixty-nine graduates found jobs during the 1948-49 school year; 150 were already placed as of March 31, 1950.

Most in demand are teachers, food service and home service workers, and hospital dietitians.

Wilmington Lets Contract for Field

WILMINGTON, OHIO. — Wilmington College recently announced that a contract had been let for the construction of the Townsend Memorial Field on the campus.

The field will be paid for by a fund raised a few years ago by contributions from schools and individuals all over Ohio for the construction of a memorial to the late Horace R. Townsend, first Ohio high school athletic commissioner. At the time of his death, he was chairman of the Wilmington board of trustees, so it was decided to erect the memorial on the Wilmington campus.

The contract for the new field calls for clearing, scalping, excavating and rolling the site of the south side of the campus. It was estimated that 12,000 cubic yards of earth will have to be moved. In addition, laying of 3600 feet of 6 inch drainage tile, 470

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CHAIN LINK FENCE

Copperweld* Chain Link Fence is the protective fence that protects itself. It *never* needs a drop of paint—no maintenance costs to worry about. There's no other fence like it. It is made of Copperweld Wire—with a thick, durable copper covering inseparably "Molten-Welded" to a strong steel core.

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Steel Core For Strength
THE EXCLUSIVE COPPERWELD "MOLTEN-WELD" MAKES THE 2 METALS INSEPARABLE

NEWS

feet of larger concrete pipe, and construction of a quarter-mile cinder track, 20 feet in width, are included in the specifications, according to Lawrence D. Shinn, business manager.

Biology Building for College of the Holy Cross

WORCESTER, MASS. — Construction of a new $500,000 biology building incorporating several unusual features has been announced by the College of the Holy Cross. The new building will accommodate a working biology museum and a complete biology reference library. Photo and dark rooms for training students in photomicrography and the preparation of lantern slides are included in the plans, in addition to a microtechnic laboratory.

The building will provide refrigeration, tank and cage facilities for keeping warm blooded and cold blooded animals used for experimentation and also will contain a hothouse for growing and cultivating botanical specimens.

GIFTS AND BEQUESTS

• **Ohio Wesleyan University,** Delaware, Ohio, received last year from alumni and friends gifts totaling $53,463.53 for the alumni fund; this was a 78 per cent increase over the 1948 figure and a new all-time record. The alumni fund goal for 1950 is $65,000.

• **Greensboro College,** Greensboro, N.C., has announced receipt of a gift of the Hannah Brown Finch Memorial Chapel by George D. Finch of Thomasville. The chapel will be a memorial to Mr. Finch's mother, a member of the class of 1885.

• **Adrian College,** Adrian, Mich., reported receipt of $30,000 to be used for equipping and remodeling a home economics practice house, to be known as the Tobias Memorial House in honor of the donors, Mr. and Mrs. Ernest E. Tobias.

• **University of Michigan's** board of regents recently announced acceptance of gifts amounting to $78,069.49. Largest of the gifts was one of $25,000 from L. J. Montgomery of Battle Creek for bronchial asthma research.

• **Pomona College,** Claremont, Calif., announces receipt of three gifts. One for $10,000, is for the establishment of a scholarship fund in memory of the late Alice M. Sanborn, a member of the 1889 preparatory class at Pomona; the second gift, for $20,000, is from the will of the late Frank H. Harwood, former president of the board of trustees. The third gift is for $5000, given to the college by F. H. Merrill, president of the Los Angeles Soap Co., as a memorial to his wife, who died recently. Mrs. Merrill had made a gift of the same amount during her lifetime.

• **University of Pittsburgh** officials announced that $7,753,159 has been raised toward the $12,700,000 goal of the university's building fund campaign.

• **Massachusetts Institute of Technology** officials report receipt of $1,000,000 from John D. Rockefeller Jr., to be used to "broaden its educational program and strengthen its financial condition." This gift brings a total of $12,162,309 contributed in the $20,000,000 development fund campaign of M.I.T. It is the third million-dollar contribution received by M.I.T. during the current development program.

• **Princeton University** officials report receipt of a gift of $50,000 to establish an advanced fellowship in astronomy in memory of the late William Charles Peyton, president of the Standard Stoker Company. Funds were donated by his son, Bernard Peyton, president of the New York Air Brake Company.

• **Barnard College,** New York City, has been given securities with a market value of $1,000,000 by John D. Rockefeller Jr. for the college's $10,800,000 development fund. The gift was made "for the over-all development program, to be used in such ways as the trustees of the college may in their discretion think best."

• **Marietta College,** Marietta, Ohio, at the first report dinner in its capital fund campaign announced that the average alumni gift was $581.42.

• **Moravian College,** Bethlehem, Pa., has exceeded its Sesquicentennial Fund goal of $750,000 by $12,600. Residents of Bethlehem contributed $286,000 of the total.

• **University of Notre Dame,** Notre Dame, Ind., reports a gift of $1,500,000 from I. A. O'Shaughnessy, president of the Globe Oil and Refining Company, for the construction of a liberal and fine arts building. Mr. O'Shaughnessy is the third person to contribute a substantial sum toward the university's $5,000,000 two-year building program.

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NAMES IN THE NEWS

E. K. Cratsley

Dr. Edward K. Cratsley, comptroller of St. Lawrence University, Canton, N.Y., has been named vice president in charge of finance at Swarthmore College, Swarthmore, Pa. His appointment will become effective at the beginning of the new academic year in September. **Robert E. Consler,** associate professor of economics and business administration at St. Lawrence University, has been named comptroller-elect to succeed Dr. Cratsley.

Dr. Algo D. Henderson, deputy commissioner of education for the state of New York, has been named professor of higher education at the University of Michigan's school of education, according to a recent announcement by **James P. Adams,** provost of the university.

M. T. Harrington

Marion Thomas Harrington, formerly dean of Agricultural and Mechanical College of Texas, College Station, has been named president. **C. Clement French,** vice president of Virginia Polytechnic Institute at Blacksburg, Va., has been named to succeed Dr. Harrington as dean in the school of arts and sciences at Texas A. and M.

Dr. Leslie K. Patton, dean of Tusculum College, Greeneville, Tenn., for the last 11 years, has been appointed acting president of the college. **Dr. George K. Davies,** former president of Tusculum, has accepted the pastorate of the Walnut Street Presbyterian Church, Philadelphia.

W. L. Krogman, superintendent of buildings and grounds at the University of Chicago, has been named acting business manager-campus operations, succeeding **H. B. Matthews. W. R. Zellner** succeeded Mr. Krogman as superintendent of buildings and grounds. Both appointments became effective July 1.

Rev. Joseph Kennard Drane, S.J., recently was named as dean of Loyola College at Baltimore. He succeeds the **Rev. Matthew Gerard Sullivan, S.J.,** who becomes his successor as dean of St. Joseph's College in Philadelphia, the position held by Father Drane for the last five years.

Carlyle C. Ring, superintendent of schools at Jamestown, N.Y., has been appointed provost of the new Jamestown Community College.

Fay E. Smith, comptroller of the University of Wyoming, Laramie, who has just completed 29 years of service at the university, assumed the new title of land coordinator and fiscal agent. **Lawrence G. Meeboer,** assistant comptroller and deputy treasurer, was named business manager. Both appointments became effective July 1. The change in titles was made as the fiscal operations of the university were organized, and the office of comptroller was abolished. The reorganization followed a three-year development study.

Allen C. St. Clair, purchasing agent for Lord and Taylor, New York City, for the last 12 years, has been named director of purchases at Pennsylvania State College. His appointment be-

Corridor—Spaulding High School, Rochester, N. H.

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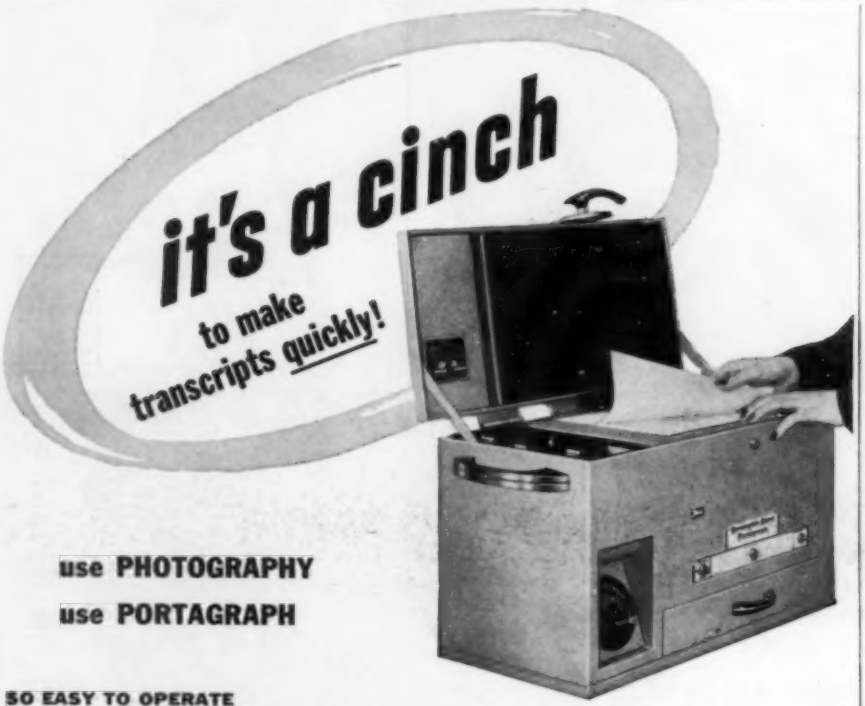
came effective July 1. Mr. St. Clair succeeded **H. W. Loman.**

J. W. Vanderwilt

John W. Vanderwilt, secretary of the board of trustees of Colorado School of Mines at Golden, has been named to the presidency of the college. He succeeded **Ben H. Parker,** who had been president since 1946.

Daniel Z. Gibson, dean of Franklin and Marshall College, Lancaster, Pa., recently was elected to the presidency of Washington College, Chestertown, Md. He succeeded the late **Gilbert W. Mead.**

Alfred T. Hill, vice president, Lake Erie College, Painesville, Ohio, has been named acting president. He succeeds **Helen Dalton Bragdon,** who resigned recently to become general director of the American Association of University Women.



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Dr. Roben J. Maaske, president of Eastern Oregon College of Education, La Grande, has been named president

R. J. Maaske

R. G. Langston

of Oregon College of Education at Monmouth, where, on July 1, he succeeded **Dr. H. M. Gunn. Dr. R. G. Langston** has been appointed president of Eastern Oregon College of Education as a successor to Dr. Maaske.

Herbert J. Grassie, retired rear admiral of the U.S. Navy and formerly commander of the Great Lakes naval training center in Illinois, has been named president of Lewis College of Science and Technology, Lockport, Ill., according to an announcement by the retiring president, **Bishop Bernard J. Sheil,** who has headed the school since 1934.

Harvey H. Davis, dean of the graduate college of the State University of Iowa, Iowa City, has been named provost of the university. His new appointment consolidates the duties of the executive deans of the division of health sciences and services and the division of research and teaching.

Rev. Sidney Wilmot Goldsmith Jr., rector of St. John's Church, Williamstown, Miss., has been named rector and headmaster of the Shattuck School at Faribault, Minn.

D. W. Smythe, assistant comptroller of DePauw University, Greencastle, Ind., has also been named purchasing agent. His appointment became effective last month.

Ray M. Royer, Ohio State University purchasing agent, retired at 70 years of age after having been a member of the university staff for 48 years and purchasing agent since 1916. On July 1 he was designated by the board of trustees to be the first purchasing agent emeritus in the history of Ohio State University. A special testimonial dinner was held in his honor on June 6.

Clarence A. Livingston, superintendent of buildings and grounds at the University of Rochester, Rochester, N.Y., for the last 28 years, retired from active service on July 1. He will be succeeded by **James M. Young.** During

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Mr. Livingston's 28 years of service, the physical plant grew from a college plant of $2,500,000 to its present four campuses with a plant valuation of $35,000,000.

H. E. Weatherlow

Hugh E. Weatherlow, superintendent of buildings and grounds at Cornell University, Ithaca, N.Y., for the last 14 years, retired on June 30. During his administration, more than 60 new buildings were erected on the campus. He will be succeeded by **Robert M. Mueller,** who has been assistant to the university's vice president in charge of business, **George F. Rogalsky,** since 1948.

Nell Morris, director of food service at Texas State College for Women, Denton, resigned her position recently to accept a position as head of the consumer service department of the Frito Company in Dallas. Miss Morris, a member of the college staff for 18 years, is a former president of the Texas Dietetic Association.

Scott Thompson, president of Compton College, Compton, Calif., and also superintendent of schools in that city, resigned from both positions July 1. By action of the board of trustees of the college, Dr. Thompson has been designated as president emeritus.

Mrs. Eugenie Howard, director of the union building at the University of Texas, Austin, has resigned her position after four years at the Texas campus. She will join her husband as he continues his education toward a degree in medicine at Stanford University.

Hugh Potter Baker, president emeritus of the University of Massachusetts, Amherst, died recently at the age of 72 years. He had been president of the university from 1933 to 1947.

Ernest O. Holland, president emeritus of the State College of Washington, Pullman, died recently at 76 years of age. He had been president of the State College of Washington from 1916 to 1945.

Dr. Edward A. Birge, president emeritus of the University of Wisconsin, Madison, since 1925, died recently. He had been a member of the Wisconsin faculty for 75 years and would have been 99 years old in September.

DIRECTORY OF ASSOCIATIONS

Association of College and University Business Officers

Central Association
President: John K. Selleck, controller, University of Nebraska; secretary-treasurer: C. C. Long, bursar, University of Illinois.

Eastern Association
President: H. R. Patton, Controller, Carnegie Institute of Technology; secretary-treasurer: Irwin K. French, Middlebury College, Middlebury, Vt.
Convention: December 3-5, Royal York Hotel, Toronto, Canada.

Southern Association
President: C. B. Markham, Duke University; secretary-treasurer: Gerald D. Henderson, Vanderbilt University.

Western Association
President: Elton D. Phillips, business manager, University of Southern California; secretary-treasurer: James M. Miller, assistant business manager, University of California.
Convention: May 1951. Santa Barbara, Calif.

Schools for Negroes
President: A. I. Terrell, Winston-Salem Teachers College; secretary: L. H. Foster Jr., Tuskegee Institute.

Association of College Unions

President: Donovan D. Lancaster, Bowdoin College; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.
Convention: April 1951. Michigan State College, East Lansing.

Association of Physical Plant Administrators of Universities and Colleges

President: L. L. Browne, University of Arkansas; secretary-treasurer: A. F. Gallistel, University of Wisconsin.
Convention: May 1951. University of Oklahoma, Norman.

American College Public Relations Association

President: E. Ross Bartley, Indiana University; secretary-treasurer: Edward P. VonderHaar, Xavier University, Cincinnati.

College and University Personnel Association

President: George W. Armstrong, University of Pennsylvania; secretary-treasurer, Ruth Harris, University of Illinois.

National Association of College Stores

President: Herbert Hays, Berea College; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.
Convention: April 29-May 2, Columbus, Ohio.

National Association of Educational Buyers

President: Holger B. Bentsen, George Williams College; executive secretary: Bert C. Ahrens, 45 Astor Place, New York, N.Y.

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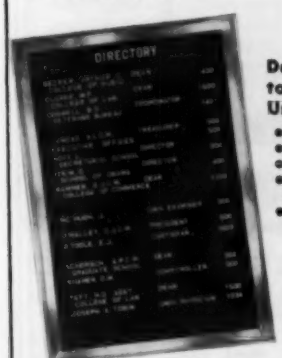

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100° rise in temperature of hot water supply from 125 to 225°F

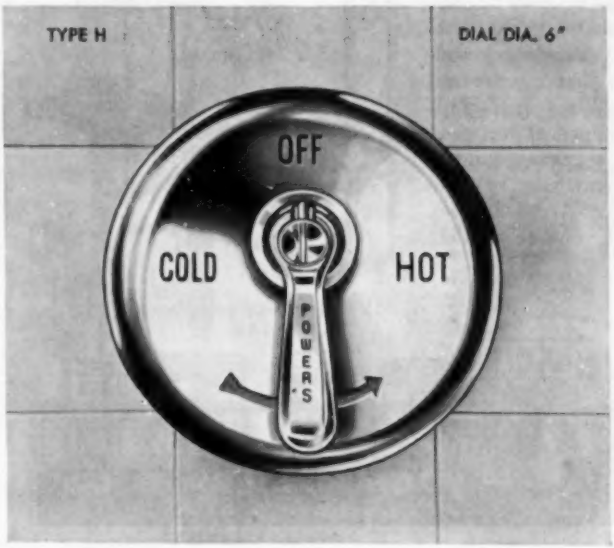
If You Test Various Water Mixing Valves by the above conditions . . . you will find that POWERS Type H THERMOSTATIC WATER MIXERS Will Out-perform All Other Mixers

Note that Government test specifications include TEMPERATURE rise. Pressure actuated mixers do not safeguard shower users against this danger.

"The BEST Showers

are regulated by POWERS"

THERMOSTATIC SHOWER MIXERS Give SAFEST Control Obtainable



● Proof obtained from tests described at left will show that no other *thermostatic* or *pressure actuated* shower mixer provides the greater safety insured by a Powers Type H Mixer.

In 1923 POWERS pioneered with the first pressure actuated type mixer which has been obsoleted by our far superior Type H Thermostatic Mixer. Its powerful quick acting thermostatic motor gives the most accurate control obtainable regardless of *pressure* or *temperature* changes in water supply lines.

When only one shower accident may cost many times more than POWERS mixers, why risk being "half-safe" with less than the safest mixer made?

(TH)

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OFFICES IN OVER 50 CITIES • SEE YOUR PHONE BOOK

Over 58 Years of Water Temperature Control

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LOS ANGELES 5, CAL., 1808 W. 8th St. • TORONTO, ONT., 195 Spadina Ave.

WHAT'S NEW

July 1950

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 72. Just circle the key numbers on the card which correspond with the numbers at the close of each descriptive item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Science Instructor's Table

The newly designed science instructor's table developed by E. H. Sheldon and Company is an attractive, efficient aid to teaching. The sink, fixtures and accessories used by the instructor are in one piece with the desk which has space for locked storage, a file sized drawer, space for textbooks on the desk top and plenty of room for working.

The unit is correctly proportioned and well designed with acid resistant tops, modern paneling, indented base to provide foot room when standing and attractive finish. The compact, efficient unit is 8 feet long and standard height. **E. H. Sheldon & Co., Dept. CUB, Muskegon, Mich. (Key No. 446)**

Flameproof Drapery Material

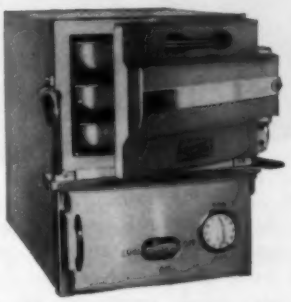
Colorbestos is a colorful, flameproof, asbestos textile designed for drapery purposes. It is light in weight, attractive in appearance and feel, is easy to handle and drapes and folds nicely. The material is made of asbestos yarn combined with a warp of cotton. The weaving is such that the asbestos yarn surrounds the warp threads to provide a fabric that will not support combustion. It can be used as a decorative wall covering by applying to wall structures of plaster, steel or asbestos wallboard in addition to its use for draperies.

The new material is available in 10 plain colors and 3 different weaves. Stripes and multicolor prints as well as other special weaves can be made to order and special colors can be matched. All colors are fast to daylight, washing, dry cleaning and hot pressing. Colorbestos can be washed with household soaps and water or dry cleaned with conventional solvents without damaging either appearance or fire protection. The material comes in 50 yard or 100 yard bolts and the standard width is 48 inches. **Johns-Manville, Dept. CUB, 22 E. 40th St., New York 16. (Key No. 447)**

Floor Drain

A special lock, which allows only authorized personnel to have access to the internal strainer and drainage line, is used on the new Vandal Proof Floor Drain recently announced. A special tamperproof cover is also a part of the drain and is designed to eliminate the possibility of deliberate clogging or damaging of the drain. **A. J. Zurn Mfg. Co., Dept. CUB, Erie, Pa. (Key No. 448)**

Steamcraft Cookers



Several new models have been added to the line of small Steamcraft steam cookers. Included are hand controlled models as well as those with automatic electric operation. They are available for use with gas or electricity or for direct steam connection in 1 and 2 compartment styles, for counter or table use or furnished with bases.

The cookers accommodate standard 12 by 20 cafeteria pans or 12 by 10 pans. The small cookers produce the same result as the heavy duty compartment steamers with similar reduction of meat shrinkage. Reheating, tenderizing and preroasting can be conveniently handled. When used in the smaller kitchen which has a steam supply, they offer an economical and easily operated cooker. **Cleveland Range Co., Dept. CUB, 3333 Lakeside Ave., Cleveland 14, Ohio. (Key No. 449)**

Small Machine Desk

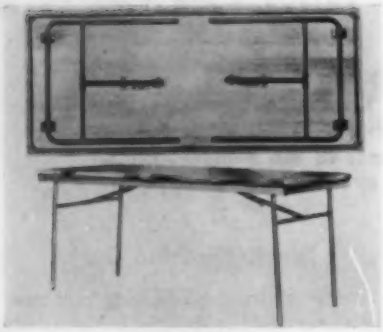
A new 50 inch calculating machine or typewriter desk in the Mode-Maker series has recently been added to the four legged line of General Fireproofing desks. This small model is an all-purpose desk with many uses as a combination typing and clerical desk. It is compact with convenient accessibility to the calculating machine or typewriter and writing surfaces. The operator always faces in the same direction for all functions and the pedestal drawers are within easy reach. **General Fireproofing Co., Dept. CUB, Youngstown 1, Ohio. (Key No. 450)**

Removable Cover Chair

An easy chair, in the "Bentply" line, is now available with removable cover. Helical springs stretched across the wooden frame furnish a durable, elastic seating base. The removable cover has zipper pockets containing sheet rubber filling for seat and back. When attached to the frame the cover is held in position by spring and hood arrangements. When the cover needs cleaning it can be easily detached and the filling removed from the pockets. Extra covers are also available, thus giving greater flexibility for redecorating or reupholstering.

The spring and rubber construction provides seating comfort in this practical chair of modern design. The front leg, back leg and arm are one laminated molded unit. The cover is made of a soft fabric and the wooden parts are available in natural birch or maple, walnut, mahogany or enamel finishes. **Thonet Industries Inc., Dept. CUB, 1 Park Ave., New York 16, N. Y. (Key No. 451)**

Folding Table



A new folding table has recently been introduced which has several practical features. It operates with a telescopic tubular leg folding principle with a spring-clip which holds the legs fast when folded. The release catch automatically locks the legs in place when extended. Each leg has a universal joint, self-locking floor guide to ensure perfect floor contact and less wear.

The table is available in sizes from 24 by 42 to 36 by 96 inches as well as in 50, 60 and 72 inch round contour. Five different tops are available: tempered composition; linoleum; 7-ply plywood; black and colored Formaloid, and black and colored Royaloid. All tops have polished, anodized, extruded aluminum edging and 2½ inch Plastelle finished metal aprons fitted with rubber bumpers for stacking without marring. Legs are either Royalchrome plated or Plastelle finished. **Royal Metal Mfg. Co., Dept. CUB, 175 N. Michigan Ave., Chicago 1. (Key No. 452)**

Insect Spray

A new, fast-acting contact spray which stops flies and other insects on application and kills quickly is non-injurious to humans and non-staining when used as directed. Known as Ozex, the spray is scientifically formulated and activated with pyrethrins, methoxychlor and piperonyl butoxide. It is supplied in the Woodlet dispenser which can be sprayed with one hand and is clean, spillproof and ready for instant use. The spray can be directed up or down and into cracks and crevices. **Woodlets Inc., Dept. CUB, Portland, Pa. (Key No. 453)**

"Super 12" Floor Machine

An all-purpose floor maintenance machine for care of moderate-size floor areas has been introduced as the "Super 12." The result of intensive study and research, the new machine rounds out the line of floor machines developed by S. C. Johnson & Son, Inc., so that the company has sizes for all purposes. The "Super 12" is a complete unit, compact, easily operated, durable and streamlined in appearance. It polishes, scrubs, sands, steel wools and waxes floors of all kinds. The addition of a solution tank and shampoo brush makes it possible to use the machine for shampooing rugs.

The motor and brush housing is a single all-aluminum casting which affords protected gear operation, greater splash protection and neat appearance. Two non-marking bumpers, one low and one high, give double protection against marring of baseboards and furniture. The machine is low to reach under furniture and equipment. Self-leveling finger spring brush brackets provide even, uniform scrubbing and polishing operations on rough or uneven floors. **S. C. Johnson & Son, Inc., Dept. CUB, Racine, Wis. (Key No. 454)**

Fry-Top Range

Increased frying area for greater capacity is a feature of the new improved fry-top range recently introduced. The frying surface itself slopes slightly toward

a new drain channel which extends across the front for easier drainage. A large capacity grease container attaches to the front of the range and lifts off easily for quick emptying of grease. Higher edges around the frying surface help reduce spill-overs. **Detroit-Michigan Stove Co., Dept. CUB, 6950 E. Jefferson St., Detroit 31, Mich. (Key No. 455)**

Room Air Conditioners

Two new room air conditioners have recently been announced with full ½ ton and ¾ ton capacities. They are rated at more than 6000 and 9000 B.T.U. per hour, respectively. Extensive laboratory research and testing resulted in the design of a more efficient compressor to parallel the greater cooling of the Fedders refrigerator system to produce the high cooling capacities. The units have attractive cabinets, are economical to operate and are designed to fit almost any window. **Fedders-Quigan Corp., Dept. CUB, Buffalo 7. (Key No. 456)**

Polarograph

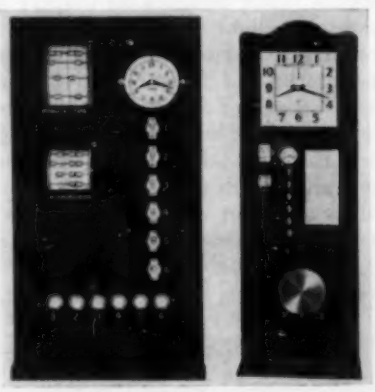
The new Model III Polarograph incorporates the same design and construction used in the recording models. It is designed for applications in which recording facilities are unnecessary although it may be used in any phase of Polarography.

Model III is particularly designed for use in routine analyses where only one substance is determined and where the step shape approximates a pure form; in laboratories where the recording instrument is in use for determinations and thus may be released for research purposes; in the performance of amperometric titrations, and for instructional purposes. The Model III Polarograph is designed to provide facilities for the incremental application of voltage across the dropping mercury electrode cell and for indicating the resultant current passing through the cell. **E. H. Sargent & Co., Dept. CUB, 4647 W. Foster Ave., Chicago 30. (Key No. 457)**

Time Machine

A new master clock and program machine, known as the "Master-Pro," has recently been introduced for use in institutions. Described as an advanced development in centralized time and signal control, the "Master-Pro" acts as a master clock by sending out electrical impulses once each minute to all secondary or indicating clocks and time recorders and acts as a program instrument by sounding signals. Thus sounding of all signals is in exact synchronism with all secondary clocks.

Operating directly from the power line, the "Master" section of the "Master-Pro" sends 24 impulses over a two-wire circuit and can accommodate the equivalent of 40 secondaries. The capacity can be increased by the use of boosters. The engineering of the unit makes it simple to set or alter a schedule. More than 100 separate signals can be set on each circuit and a calendar device permits the silencing of signals during any 12 hour



period. **The Cincinnati Time Recorder Co., Dept. CUB, Cincinnati 14, Ohio. (Key No. 458)**

Petri Dish Holder

Devised for convenient use and storage of petri culture dishes, the new neoprene-coated visual petri dish holder holds 18 dishes size 100 mm by 10 mm or 12 dishes size 100 mm by 15 mm. The dishes are easily inserted through an opening in the upper front of the holder and are then stacked in two columns. The heavy neoprene coating offers protection against breakage and chipping and is not affected by sterilization and refrigeration or by most chemicals. Dishes and their contents can be easily seen and the holders can be stacked on top of each other for compact, space-saving arrangements. **Schaar & Co., Dept. CUB, 754 Lexington, Chicago 7. (Key No. 459)**

Maintenance Trestle

Several improvements have recently been made in the Bil-Jax Maintenance Trestle. Designed to simplify overhead

maintenance jobs, wall washing, store room work, painting and construction work, the trestle now has rubber tired casters which can be locked in position, guard rails, window tie-ins and brace lugs which permit grouping of trestles to provide multiple work platforms. The trestle is also available with ordinary casters and has an adjustable stem which permits use over stairways and on other non-level surfaces.

The basic trestle consists of two 5 foot base sections, two regular heads which are reversible and one 8 foot trussed overhead ladder. The unit stands 7 feet high and its parts can be arranged to supply a platform of any desired height from 1 foot to 8 feet. Additional height can be obtained by adding extra ladder sections in 3 or 6 foot lengths. Catwalks may be spaced to provide 1 to 3 or more working levels. Side brackets, trussed plank rest, combination reversible head and low base for use in narrow passageways are accessories which extend the usefulness of the trestle. **Bil-Jax, Inc., Dept. CUB, Archbold, Ohio. (Key No. 460)**

Product Literature

• Printed in full color to illustrate the advantages of color conditioning for hospitals, schools, offices, auditoriums, cafeterias, and many other areas, the new 32 page **"Du Pont Color Conditioning"** booklet presents down to earth ways of making color work for you. Color Conditioning is a scientific painting plan resulting from many years of research in the functional use of color. Color as a means of providing a cheerful atmosphere, emotional relaxation, visual comfort and other reactions is discussed in its relation to the use to be made of it. The booklet is available from Department P.R. 2, Finishes Div., Du Pont Co., Wilmington, Del. **(Key No. 461)**

• The entire line of Diesel-driven electric generating plants produced by D. W. Onan & Sons, Inc., Minneapolis 5, Minn., is described in the 1950 Onan Diesel Folder. The new Onan air-cooled, 5000 watt Diesel electric plant is featured in the catalog known as **Onan Diesel Folder A-192. (Key No. 462)**

• A full color illustrated folder has been issued by Marsh Wall Products, Inc., Dover, Ohio, on its new line of **Marlite Wood and Marble Pattern** plastic-finished wall and ceiling panels. Information given in the folder will be especially helpful in solving problems of modernizing or installing new walls and ceilings in offices, reception rooms, corridors, rest rooms and other areas. Five of the new Marlite patterns are reproduced in full color in the folder. **(Key No. 463)**

• Full information on **"Venturi-Flo Ceiling Outlets"** is given in the new **Catalog F-4085** issued by Barber-Colman Co., Rockford, Ill. The outlets are described as offering quiet operation, high diffusion efficiency, wide range of sizes and rigid construction. Diagrammatic drawings and sketches give technical and engineering data and six pages of charts supply performance data. **(Key No. 464)**

• The problems of resurfacing service floors of various types are dealt with in a special bulletin, **"Service Floors for Industries and Institutions,"** recently issued by United Laboratories, Inc., 16801 Euclid Avenue, Cleveland 12, Ohio. Four general types of materials for renewing old floors are described and the conditions under which each type of material should be considered are discussed. **(Key No. 465)**

• An **Atomic Chart,** printed in four colors and arranged by Dr. Herta R. Leng of Rensselaer Polytechnic Institute, Troy, N. Y., has been published by W. M. Welch Mfg. Co., 1515 Sedgwick St., Chicago 10. The chart is offered without charge. **(Key No. 466)**

• A new color chart catalog on Tile-Tex Asphalt Tile has recently been made available by the Tile-Tex Division, the Flintkote Company, Chicago Heights, Ill. Illustrating 35 colors available in Tile-Tex Asphalt Tile, **Catalogue S-10** also includes suggestions on how to design tile floor patterns and gives size, thickness and feature strip data. **(Key No. 467)**

• **"How to Have a Beautiful Lawn"** is the title of a booklet made available by The Eclipse Lawn Mower Co., Prophetstown, Ill. The 16 page pamphlet gives detailed information on the essentials for a good lawn, laying out the lawn, seed, grading, preparation of soil, sowing, care after sowing, feeding and fertilizers, watering, weeds, pests and lawn mowing with data on Eclipse lawn mowers. **(Key No. 468)**

Suppliers' News

A. B. Dick Company, 5700 W. Touhy Ave., Chicago 31, manufacturer of mimeograph machines and supplies and other office equipment, announces the purchase of the assets from the stockholders of the dissolved Boblit Folder Co., Inc., Jackson Center, Ohio, and entry of the Dick Company into the paper folding machine field. The Boblit Folder has been renamed the A. B. Dick Folder Model 55 and the electrically driven, automatic feed machine, which is capable of folding thousands of copies per hour of various weights and sizes of papers in many different types of folds, is now being made in the Dick plant.

The National Radiator Co., Johnstown, Pa., manfacturer of boilers, radiators and heating accessories, announces the establishment of a branch sales office at **5736 Twelfth St., Detroit 8, Mich.** The new office will be under the direction of **Victor W. Blackney,** branch manager.

Remington Rand Inc., 315 Fourth Ave., New York 10, manufacturer of business machines and office systems, announces acquisition of the exclusive sales rights to the American Optical Company's Electronic Drive 16mm. Microfilm Reader.

John Sexton & Co., 500 N. Orleans St., Chicago 90, wholesale grocer, announces the opening on August 1 of a new branch at **1950 Army St., San Francisco, Calif.,** to serve the Pacific Coast territory west of the Rockies.

Wyandotte Chemicals Corp., Wyandotte, Mich., manufacturer of cleaning and sanitizing compounds, announces purchase of the Pacific Chemical plant of the American-Marietta Company of Los Angeles, Calif. The plant will be remodeled to provide a Pacific Coast manufacturing unit to serve Wyandotte branches in Los Angeles, San Francisco and Seattle.

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Dining Hall
Student Lounge
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Captain's
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Durable and Smart

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Recent American Chair furniture installations include University of Wisconsin, Indiana University, Butler University, University of Alabama and University of Mississippi.

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IS THE ONLY FENCE MADE OF KONIK STEEL

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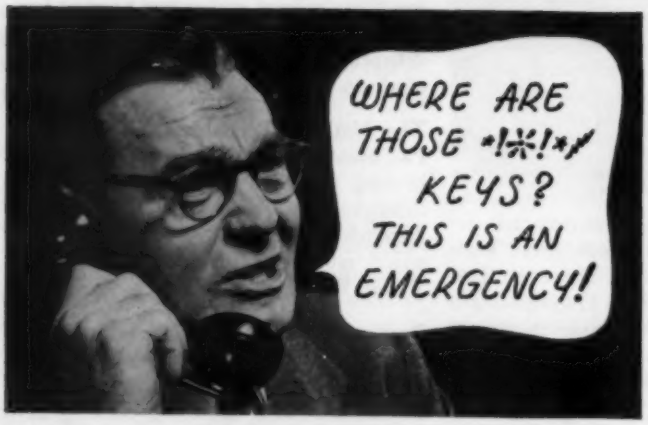

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42½" x 21¼" x 46½". 2 cans up to 30 gals. cap. each. Ship. wt., approx. 150 lbs.

Moves Easily and NOISELESSLY on its 3-inch Rubber-tired casters.

Ideal for use in cafeterias, kitchens, infirmaries, laboratories, dormitories, corridors, grounds, etc. to eliminate health hazards of uncovered refuse and unsightliness of ordinary refuse cans. Encloses cans completely furnishing positive protection against all animals, insects, and other carriers of disease. No spilling, no mess. Cannot be overturned. Rugged all-welded steel construction. White, aluminum, or green baked enamel finish. Completely weatherproof—for use inside and out. (Simplifies all problems of refuse collection and disposal.) Also available in single units.

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THE SANICON COMPANY
NORFOLK, VIRGINIA

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468 The Eclipse Lawn Mower Co.
"How to Have a Beautiful Lawn"

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This card is detachable and is provided for your convenience in obtaining information on all items advertised in this issue. See reverse side.

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NAME _____ TITLE _____

INSTITUTION _____

ADDRESS _____ CITY _____ ZONE _____ STATE _____

This Goodform chair goes to Princeton
In a chair Goodform means easy handling
This is Goodform Institutional Chair No. 4307.

THERE are several thousands of this good-looking Goodform at Princeton University—in classrooms, laboratories, study halls, offices, and the new Firestone Library.

Goodform No. 4307 is an *aluminum* chair—designed for smart style and comfort, built for rugged service. The contrast of sparkling natural aluminum and colorful upholstery is pleasing to the eye. Comfort is built into the well proportioned, shaped back and seat, cushioned (when specified) with luxurious foam rubber. Lifetime strength and durability are insured by welded construction of a tough, rigid frame that never splinters, never loosens, never weakens.

Easy handling is an outstanding advantage of every Goodform chair. Good balance, exceptionally light weight and a well placed bar across the chair back make it easy to pick up and carry, or move a chair in each hand. Cleaning is merely a matter of washing with soap and water.

Write for a free, color-illustrated booklet which shows other models available in the complete line of Goodform institutional chairs. The General Fireproofing Company, Department S-19, Youngstown 1, Ohio.

GOODFORM ALUMINUM CHAIRS

GENERAL FIREPROOFING

Foremost in Metal Business Furniture

DEALERS THROUGHOUT THE WORLD

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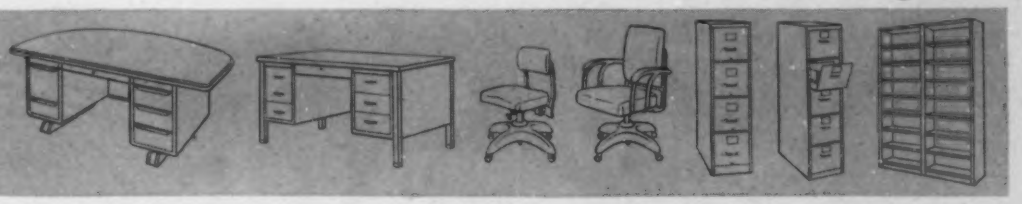
There is a complete line of GF metal furniture—desks, tables, chairs, files and shelving



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—accessories) for EVERY oven need!

New! HOTPOINT Glamour Line FRY KETTLES
—Model HKGS (shown) with NEW Calrod Unit* preheats
41% faster—production capacity up 50%
—also available in 60 lb. size for extra capacity!

New! HOTPOINT Glamour Line "MEDIUM DUTY" RA
—full commercial capacity for small and medium-
operations!
—sturdy commercial construction at low cost.

Glamour comes to the Commercial Kitchen

INTRODUCING...THE MAGNIFICENT NEW

HOTPOINT Glamour* LINE!

FEATURING THE AMAZING NEW

SUPERange with Recipe ROBOTROL

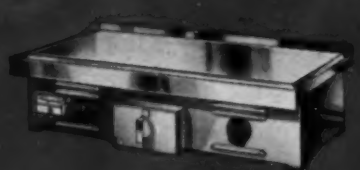
Here it is! Hotpoint's brilliant new Glamour Line—the most beautiful commercial cooking equipment ever! Finished in lustrous silver-gray PERMALUCENT, Glamour Line equipment is the "new look" in commercial cooking . . . makes your kitchen a brighter, easier to work in, easier to *keep* clean, food-service showplace.

But new BEAUTY and Styling are only the brilliant backdrop for a host of new, exclusive performance and design features! New Calrod® Units, now faster and more powerful than ever . . . new oven decks that make all other types obsolete . . . faster, better fry kettles that do *twice* the work of ordinary kettles . . . and the greatest development in range history . . . Hotpoint's sensational new "around the clock" range—the SUPERange with Recipe ROBOTROL and exclusive griddle-hotplate top.

Here for the first time is offered accurate, automatic control of range-top heat—all the way from 250° to 850° F. Now Recipe ROBOTROL permits you to measure the *exact* amount of heat—just as you measure exact amounts of ingredients and time—for perfect recipe results ALL THE TIME!

Get the complete story in the colorful 24-page booklet, "Glamour Comes To the Commercial Kitchen." Your *free* copy is ready for you now. Send coupon today!

New! HOTPOINT Glamour Line BROILERS
—with time-saving convenience and efficiency!
—choice of 5 models to fit your requirements exactly!



New! HOTPOINT Glamour Line GRIDDLES
—with cost-cutting speed and economy!
—available with stand or for counter mounting!

New! HOTPOINT Glamour Line ACCESSORIES
—with NEW, matching design and finish to round out a
COMPLETELY BEAUTIFUL Kitchen!

A New Super-Deluxe Companion Line to the World-Famous Standard Line of Hotpoint Commercial Cooking Equipment.

All electric cooking with Hotpoint

A GENERAL ELECTRIC AFFILIATE

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Gentlemen: Please send full details on the new Hotpoint GLAMOUR line and the SUPERange.

Name_____ Title_____

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